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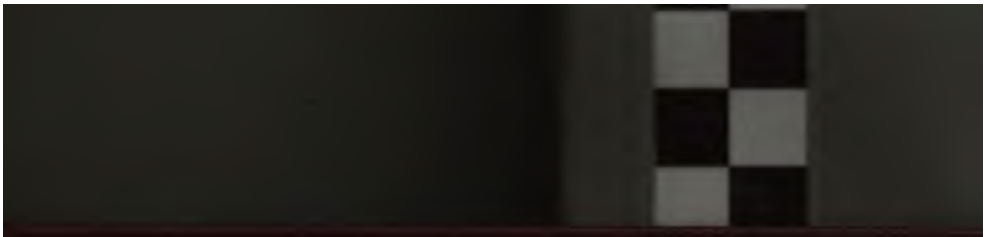

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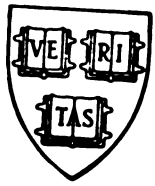


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# VALUE OF THE CLASSICS

For what is the life of man, if memory of the past be not inwoven in the life of later times.

Quid est aetas hominum, nisi ea memoriâ rerum veterum cum superiorum aetate contexitur?

Cicero: Orator, 120

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A record of the Addresses delivered at the Conference on Classical Studies in Liberal Education held at Princeton University, June 2, 1917, together with an introduction and a collection of statements and statistics. The Addresses are printed in the order of the Conference programme. The statements are arranged under their main headings partly in geographical and partly in topical order.

The editing of this book has been done by Dean Andrew F. West with the cooperation of Professors F. F. Abbott, Edward Capps, Duane Reed Stuart, Donald Blythe Durham and Mr. Theodore A. Miller. The statistical material has been furnished in part by Professor W. M. Adriance, Professor C. H. Forbes and Professor Harris Hancock, and in part by the College Entrance Examination Board, the United States Bureau of Education and various colleges and schools.

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## Athens in Education

So far has our city left behind the rest of men both in thought and speech that her pupils are become teachers of the others; and she has caused the name of the Greeks to stand as no longer the name of a race, but as the name of knowledge.

τοσοῦτον δ' ἀπολέλοιπεν ἡ πόλις ἡμῶν περὶ τὸ φρονεῖν καὶ λέγειν τοὺς ἄλλους ἀνθρώπους, ὥσθ' οἱ ταύτης μαθηταὶ τῶν ἄλλων διδάσκαλοι γεγόνασι, καὶ τὸ τῶν Ἑλλήνων ὄνομα πεποίηκε μηκέτι τοῦ γένους ἀλλὰ τῆς διανοίας δοκεῖν εἶναι.

Isocrates: Panegyric on Athens, 50

## PREFACE

In education definite evidence is worth more than theorizing. This book is chiefly an appeal to facts, and two classes of facts appear in its pages.

The first includes the testimony contained in addresses given at the Conference and in the statements of nearly three hundred competent observers representing the leading interests of modern life and including many of the highest names in our land. Four Presidents of the United States head the distinguished list. To make sure the evidence is as free from professional bias as is practicable, the teachers of the classics have been excluded except in the few cases where they happen to be the heads or authorized representatives of institutions and are thus entitled to speak for them. The statements are chiefly American, supplemented by a few important declarations from England and France. This testimony, with only occasional variation in its degree of conviction or of emphasis on one or another factor, converges steadily to one main conclusion, namely, that classical studies are of essential value in the best type of liberal education and that whenever the classics are well taught the results are satisfactory.

The second part is statistical. The most pertinent and reliable facts in the records of our schools and colleges, so far as procurable, are here presented and examined. They reveal the general and decided superiority of classical over non-classical students in the chief

school studies and in college studies also. They also reveal the complete inaccuracy of recent assertions that the classics are poorly taught in comparison with other subjects.

Apart from a relatively small number of testimonies, all the material has been very recently prepared especially for this book. It is therefore a fresh contribution of original value for all who care to know on what sort of evidence the case for the classics rests both in the records of our schools and colleges and in the judgment of many men of many minds who speak from knowledge born of experience and enhanced in value by their general agreement. It is not the evidence of mere tradition, but of newly proved success.

The book had to be prepared in a short time. It was therefore impossible to treat the subject exhaustively. With longer time it would have been easy to fill several volumes with added testimonies and records of value from all parts of our country. Yet enough is printed here to furnish the most important, timely and representative assemblage of testimonies and records on this subject which has ever been presented to the American public.

Hearty acknowledgment, even if only of a general sort, is here due to all whose quick and useful help made the prompt issuing of this volume an easier task, and especially to Arthur Scribner, Frank A. Vanderlip, Paul D. Cravath, Philip Rollins and Robert McNamara, for their support which made possible the Princeton Conference of which this volume is the first fruits.

## CONTENTS


PAGE

Preface ..... v

Introduction ..... 3

I Addresses at Conference ..... 37

II Statements ..... 131

American

1 Public Life ..... 131

2 Business ..... 150

3 Universities and Colleges ..... 167

4 Schools ..... 194

5 The Ministry ..... 223

6 Law ..... 226

7 Medicine ..... 249

8 Engineering ..... 259

9 Physical and Natural Sciences ..... 265

10 Editors ..... 287

11 Modern Literature ..... 294

12 History, Political Science, Economics, Philosophy, Sociology ..... 314

13 Fine Arts ..... 825
14 Oriental Studies ..... 838
British and French ..... 845
IV Statistics ..... 857
V Index of Contributors ..... 889
VI Index of Topics ..... 895

# I

# INTRODUCTION

# THE PRESENT OUTLOOK

## AN INTRODUCTION

By Andrew F. West
Dean of the Graduate School, Princeton University

**For a man to conquer himself is the first and best of all victories.**
**Τὸ νικᾶν αὐτὸν αὑτὸν πασῶν νικῶν πρώτη τε καὶ ἀρίστη.**
**Plato: Laws I 3**

### *Our new seriousness*

An awakening of what had seemed dormant interest in the value of different studies has happened this year. It is one of many effects of an underlying cause. The entrance of America into the world war, with all its excitement, has made us more thoughtful. It has raised the imperative question: Why are we fighting? And we have answered: Not from lust for gain or power, but to save our civilized freedom. We wake to find ourselves face to face with the almost perfect mechanism of an elaborately organized autocracy, barbaric in spirit, armed with every efficient practical appliance and devoid of regard for what we hold most dear. It is again a war of "Soul with Sense" and on a greater scale than ever before in history.

To meet it we need something more than the appliances of our foe. We need the higher powers of the human soul; not skill and courage alone, but that guiding wisdom which is more than craft and which springs from undying faith in truth and freedom. It is the return in power of these simple convictions which has

sobered American thinking. The invisible things are again appearing as real. We are asking ourselves whether they are not the only things on which to build any life that is to be worth the living. Or are we mistaken in this? and is the lust for gain, power and dominion, the old *libido dominandi,* the true guide to victory? For a while we wonder. But not for long. For as we think in a flash of things like desolated Liège and Louvain, we are shaken and are forced to ask ourselves whether he who rules his spirit is not "greater than he that taketh a city" and perhaps we recall Plato's forgotten words: "For a man to conquer himself is the first and best of all victories."[1]

What theory of life and living do we hold? What kind of preparation for life here in this tempest of trial, as well as for gentler times, do we want those we love to have? The questions will not down. They are bound to determine our attitude toward education and every other phase of life. Is material success the end or only something subordinate to a better end? And is that better end the one thing which ought to rule human life? Or is selfishness, raw or refined, the end? If it is, there is no standard to save us from moral decline and consequent loss of freedom. But if it is not; if we are men and not merely examples of animal behavior, then we may help to save the modern world and share the glory of rebuilding it more surely on its true foundation. Thoughts of this sort have been sounding the undertone of recent days and calling us to consider again the meaning of our life and our preparation for life through education.

[1] Laws I 3.

### *Its practical bearing*

This is not mere dreaming. It is something close and friendly to the practical side. No man of sense would do anything else than help to increase the chances for our youth to make their living and to provide amply the education needed for this end. It is for the public good. Nine-tenths of them must begin early to earn their bread. They are the bone and sinew of the land. They should get all the vocational training they need. Also, they should get as much more sound schooling as they can take in the elements of general knowledge. For they too have minds and hearts, as well as hands. Eye skill and hand skill are good, and mind skill is better. If they are to be more than animate tools doing a daily stint of toil, they need the joys and hopes of knowledge to help them rise in the scale of life and to open glimpses into broad fields outside the little lane of their vocation. It is their right.

Is this to be our whole provision? Is there nothing further to be furnished, open to all who can take it and not confined to the few who can pay for it? If so, our democracy cuts off from most of its youth of higher promise their best chance to rise. It reduces the desperately needed supply of leaders equipped with trained intelligence, sons of the people who may render the people services of priceless value, far outweighing even the largest cost of their education. To deny them this chance is to waste our best wealth, both material and moral. It seems strange there is any need to argue these simple things. And yet millions in our land are even now indifferent to them. So we have to learn again the lesson that our public and private welfare depends

not only on virtue, but on widely diffused intelligence, and that a higher education which really educates must be vigorously and generally sustained unless our land is to sink into a sort of mediocre provincial dependence in the things which most concern our intellectual life. Once give up the effort to rise as rational beings from lower to higher and from higher to highest, there is no force that will hold us up even to where we now are. We are always moving up or down. It is in truth, if one dare quote an old author again, the "immortal conflict" of Plato "now going on" (he speaks as if today) "and calling for marvellous vigilance." And then he adds so finely: "In it our allies are the gods and all good spirits."[2] Serious as the visible war raging today is this invisible conflict of "Soul with Sense" in our education and on its issue the welfare of our nation depends as truly as on success in the fields of France.

The greater part of our people believe in maintaining education beyond the elementary stage. Our secondary schools, colleges of liberal studies, technical schools and professional schools exist in great abundance and variety. No argument seems needed for technical and professional studies, for they prepare students to enter on definite and fairly remunerative careers. But there is some hostility and much confusion in regard to liberal education in schools and colleges, and a good deal of the hostility springs from the confusion. The confusion is due to many causes, among them the diversity of interests in different regions, indifference to mental training as being in itself of "no use," the weaker instincts of unformed minds, the distracting multitude of possible studies, ignorance of the

[2] Republic X 906.

ry of education, poor salaries, uncertain tenure, rfect teaching, lack of agreement among school college authorities, occasional disastrous political in- erence and the fact that many weaker institutions unable to maintain any standards except those which m time to time happen to suit the likings of their ntele. Add to this the notion, now happily declining favor, that students on entering college are better ualified to decide what they should study than the best ducated experience is qualified to advise them. The re- sult is acknowledged to have been wasteful and dis- couraging. This must be remedied or the schools and colleges will suffer more. Yet one fact of power and en- couragement has already appeared. The war, with its clamorous call to discipline and duty, is producing a revulsion of feeling which may bring in its train a ben- eficent and lasting influence. We are at last done with the capricious view of duty. The amateur no longer counts and the "slacker" is in disgrace. The "free elec- tive system" is dead and the war has buried it. In fact it has not been the practical instinct alone, but also the longing for something definite and dependable which has swelled the growth of technical education, with its fixed demands, at the expense of a liberal education dis- jointed from so much looseness of election.

### *The latest assault on mental training*

At this juncture we have the remarkable spectacle of attacks on disciplinary studies, just as the trend was setting in toward more definite training. Mathematics and classics were assailed as antiquated and needless. The attack went farther and assailed the very idea of intellectual discipline as unsound, on the ground that it

is "content" and not "form" which is important. Classics and mathematics were decried as fretting hindrances to intellectual progress and the results in other studies were said to be demonstrably better. Of course if the mind is not susceptible to training or not benefited by it, the conclusion is sound. And if classics and mathematics are really proofs of this, they should be discarded as instruments of education. To the assertion that the human mind is not improved by disciplinary training there is a short and ready answer. It is that the assertion, if true, can be proved by facts. If the facts say so, that ends the controversy. Otherwise the assertion has no more value than any other unproved speculation. If, however, the facts are against the assertion, it is worse than unproved; it is disproved. We do not mean isolated or scattered facts, but the mass of obtainable evidence wherein all the facts appear in their relation and thus disclose the truth. And in modern times, when large systems of education have been constructed and operated on the theory that the human mind could and should be trained, and that it was best trained by means of studies of ascertained general value, there is need of a large amount of well tested evidence to discredit this verdict of wide experience and the reasoned judgment of many of the ablest minds of the race. If such a body of evidential facts exists, it should be produced. It has not been produced. There is reason to believe it cannot be produced. Yet the attack has done good. It has made men examine the foundations anew and has thus helped to bring truth to light. We may then turn with some comfort to the saying of Aristotle, not because it is old, but because it is wise, that we owe

thanks to those who agree with us and also to those who differ, "because the latter have furnished us something; exercise" in seeking the truth.[8]

### *The two objections to the classics*

The arguments against classics and mathematics, for the two are one in the present discussion, may be read better in the writers who advance them. But in substance they all reduce to two questions, the way these studies are taught and the nature of the studies themselves. The first is a question of fact, the second mainly of theory. We shall deal with each question so far as it affects the classics. As for the other, we may leave it aside, consoling ourselves provisionally with the dictum of Francis Bacon: "If a man's wits be wandering, let him study mathematics."

### *The faults of classical teaching*

Let us look at the first question. How are the classics taught, well or poorly? It is, as said, a question of fact. We admit they are sometimes poorly taught and generally more poorly taught than they ought to be and might be. We admit more, namely, that this complaint has been heard in almost every generation since the sixteenth century. Descartes lamented the barren methods of his student days in the college of La Flêche. Milton exceeds his wonted measure of vigor in denouncing the "asinine feast of sow's thistles" which was served up to him. Heine wrote of his Latin: "Often have I prayed that I might be enabled to remember the irregular verbs" and felt sure the Romans would never have found time to conquer the world if they had been first compelled to master their grammar. It is an old story

[8] Metaphysics I brev. 1.

with a serious and a humorous side. And such complaints are heard today from men who are qualified to speak with knowledge, some of them in the high places of education. We shall do well to heed them, because they are protesting against the pedantry of lifeless teaching. We may, however, note in passing that the teacher is not always the only one at fault. Lazy students shirking the toil of study and dull students unresponsive to even the finest teaching do much to bring on the *débâcle*. And it is strange that scarcely anyone who in later life finds his classical schooling was irritating and useless states that he may have been to blame for it himself. So easily do we excuse ourselves.

Men sometimes say they have forgotten their Latin and Greek and conclude that they were therefore poorly taught and that the time spent on them was wasted. Do they remember more than the scraps of other studies unless they have kept them up? Do they hold in active view many items of physics or chemistry or philosophy? Can they state accurately the law of gravitation or recall much of anything outside the studies of description and narration? Even there, how many can repeat from memory the list of our Presidents or recite The Star Spangled Banner? Try it. What we can remember is worth much, but what we had to nourish our minds in school and college counts for far more. It is like food. Who, unless he was on fixed diet, remembers what he ate a week ago last Thursday? or can recall his menu for each day of the past month? Yet the effects continue. And it is the nature of our diet in youth, as all know, which does much to determine our health in manhood.

Nevertheless there is something the matter with American classical teaching, perhaps not so much in school, however, as in college. At best we have only half the time for prescribed classics as compared with the time given in European countries. We are expected to produce comparable results. The remedy of remedies here is to begin earlier. Then too the classics are often made optional and put in unequal competition with easier and lighter subjects, some of them not much more than baby play. Is it any wonder that immature students thus circumstanced "follow the line of least resistance," leaving the harder for the easier road and exerting an influence which weakens the virility of classical teaching? "Though all men doubtless desire knowledge," wrote Richard de Bury most quaintly, "all do not equally delight in learning." Here is a great obstacle in the way of all school training, and it must be surmounted. For if we believe the evidence of experience, we are sure the human mind will not attain its best development without repeated exercise in overcoming difficulties any more than the human body will do so. Nor will it attain the balance and grace that come with well developed strength.

Moreover classical teaching is sometimes dull or uninteresting. The first is always the fault of the teacher, the second sometimes of the teacher and sometimes of the student. There is no excuse whatever for the teacher who is dull, and none for the teacher who is uninteresting when the student is capable and willing to learn. But it is unfair to insist that the teacher shall be interesting when the student is unwilling to give his attention and make his own effort. There is no interest

without attention, and no attention without an act of will. Will, rousing attention and leading to effort, will generally awaken interest even when the teacher is of only ordinary power. And immediate interest, valuable as it is, is not a sure test of the value of anything. Intrinsic importance and communicability are the final educational tests of value for studies, attention and effort the tests for students, and skill in reading and guiding the student's mind the test for teachers. These given, interest will develop steadily and often rapidly in all capable students. Here is the true basis for teaching in every curriculum at every stage of education.

So the true teacher has two clear powers, knowledge of the subject he teaches and knowledge of the object he teaches—the student. And one thing more—intuitive sympathy. Without it he will fail with all except those who are willing to work. With it he may save even the dawdlers and laggards. It gives him almost magical skill in divining his student's need and in showing him the way, step by step, from ignorance to brightening knowledge. This, above all, is what wakens desire for mastery and incites to strenuous effort. It gets behind the human will; attention wakes and effort follows.

We need hardly say that few classical teachers and few of any other sort measure up to this standard. Yet many are striving hard to do so. Whether the classical teaching is better or worse than the general run is what we need to know. For not until the American people make the career of teaching a profession with its just meed of support and honor can we for a long time to come expect much better teaching than we now have.

So intimately is the question of the quality of classical teaching inwoven with the rest.

One point needs to be noted in college teaching. The younger collegians are not as a rule in the hands of the most skilful teachers of the faculty, as they ought to be. Freshmen often say they had better teaching in the last year of school than in the first year of college. Headmasters say the same. Too many college instructors of freshmen are inexperienced in the art of teaching. They are sometimes consequential and fussy, sometimes heavy and slow and oftener lacking in the grace and skill born of sympathy. Some seem unconscious of the needs of their students. Their training as Doctors of Philosophy has not usually prepared them for this task, and many of them have to learn it from the beginning. The fate of the classics in college largely depends on providing the best teaching for freshmen. And it should be humane and enlightening throughout the whole course. Yet the trouble is not confined to the classics. It is common in other subjects also.

When shall we wake to the need of fine teaching in the essential studies? It can hardly be questioned that our boys who come to college are in school education two years behind the boys of like age in England, France and Germany. With these two years saved and devoted to well taught essential studies, many of our college difficulties, classics included, would be overcome.

*How should the classics be taught?*

We need, then, to start in the classics earlier and teach them better. We need something more—freshening of spirit. This will not come by exhortation or emotional endeavor. It will come when we regain the

spirit which caused the Revival of Learning, the "first fine careless rapture" of the Renaissance. Latin and Greek must be made natural to the American boy, as they were native to the boys of Rome and Athens. Follow the lead of Erasmus and Colet and Melancthon. Then the dead will wake and speak again. It is often said that enthusiasm without precision was a mark of the Renaissance. Precision without enthusiasm is our danger now—or else silly superficiality and dilution in order to make the classics "interesting." It is hard to say it—but even this is better than dull pedantry. Once the right spirit and method is in our teaching and we can begin early enough to take young minds when they are most plastic to the sounds, images and memories of language, the classics will be vividly "interesting." The subject is too large for this paper, but a few points may be noted. Begin two years earlier, taking boys of eleven or twelve. Remember the saying of Quintilian, greatest of Roman teachers, that we first take in language by ear. Let the American boy learn Latin somewhat in the way the Roman boy of his years learned it, only more simply. Tell him—not show him—a Latin word or easiest phrase and its meaning; *homo sum, puer es, quota hora est? quid rides?* and so on. Have him say them first and then write them. Never mind if every word is not carefully Ciceronian. He too sometimes lapsed in his daily talk—and there must have been a lot of it. Then there were other fine old Romans who did not always "speak by the book." And *vox populi, vox Dei* is perfect Latin though Alcuin wrote it, as well as *cogito ergo sum* made in France by Descartes. Use freely the Latin words that are English and show their

meaning: *omnibus, circus, item, tandem, extra, et cetera.* Show the boy the Latin, old or new, that runs through the world of geography (*Africa, Asia, America, Australia, Virginia, Canada*) all the way to the far off "beautiful" island of *Formosa.* Saying is everything here. It is the original, living, convincing utterance, the *verba labris nascentia* of Quintilian, "words born on the lips," which alone is actual Speech. With this daily usage continued, the auditional dread of Latin, so common now, would disappear and the boy would begin to get the Latin consciousness.

Two years of this simple conversational Latin of the kind that can be picked out or made up from Terence, Cicero's letters, Aulus Gellius and Augustine, practice in writing easy sentences in the simpler constructions of the *sermo cotidianus* of Rome, avoiding meanwhile the periodic sentence and finished works of adult literature not made for young Roman boys) and keeping to thoughts and expressions within the sphere of boyhood, using coins, *graffiti,* inscriptions on cups, sling stones, weapons and other things of common life, saying maxims, proverbs and other immortal quotable phrases (*dulce et decorum est pro patria mori*), trying the fables, "tales and golden histories" so far as we can, perhaps opening a little mythology in Ovid, reading aloud in selected parts of the Psalter and the Gospels, and writing, writing, writing the Latin he says, perhaps making some for himself in the form of a letter or story—something like this is the course that will bring a boy ready, really ready, and happy to begin his harder task of reading the serious literary Latin, equipped with a vocabulary that is sounding in his ears, a natural habit

of saying and writing simpler Latin and a large store of satisfying information. Does it sound too easy? It is hard enough for a boy of twelve.

Where does grammar come in? Everywhere—at first most simply by sorting words according to their kinds and then by moving on, one step at a time, to arrange them clearly under the laws of the language. When the dreaded "exceptions" occur, help the boy to use his wits and, if need be, his wit to fasten them in his mind. Take a most simple example. Words that look feminine and are masculine may annoy him awhile. Let his humor help him in handling *agricola* and *pirata* by saying in Latin "The bad farmer loves the good pirate." He will never forget this. Thus the boy is continually finding the grammar inside the used and usable language, instead of trying first to find the language in the grammar. He begins to learn the rules of the game by watching and trying the game. He may next go on to understand the game better by mastering the rules. This done, he knows how to play the game. How well he will play it then depends mainly on himself.

Where does the literature come in? Everywhere—just as soon as he begins to read the easier Latin books, boys' reading at first, men's reading as soon thereafter as is practicable. Then as vistas begin to open and perspectives to lengthen, he begins to get his reward. He has climbed the Hill Difficulty and may look out with clear vision upon the broad realm of literature and the long perspectives of history.

A life given to teaching Latin has gradually forced me to conclude that this is the true way to bring Latin *alive* into our modern consciousness. It does not call

for skilled conversationalists as teachers. Three months oral practice will give almost any Latin teacher enough of a start. In classical training, as elsewhere, it is the beginning that settles almost everything. This is the method and spirit which in varying forms inspired the teachers of the Renaissance. And what is true for Latin is as true for Greek. *Utrique eadem via est.*[4]

### *The successful results of classical teaching*

We have looked at the faults and failings in our classical teaching and have also tried to point out the remedies. We may now turn to the brighter side. It is very bright. No matter what the cause, all the available information shows that the classical generally surpass the non-classical students in school and college studies. If the teaching is bad, such students must be heroes. In our college entrance examinations the percentage of success in Greek and Latin is higher than in the other largely taken subjects. It is distinctly ahead of the results in mathematics, chemistry, history, English and the other modern languages, and about even in physics —the studies which, with the classics, form the stock and staple of preparation for college. The comparative record of classically trained students in college is also highly satisfactory. Here are ascertained facts which anyone may examine—the largest and latest body of evidence now available.[5] The superiority of the classical students is beyond question. What then becomes of the charge that the classics are poorly taught? This: that if they are, most other subjects appear to be taught more poorly. The assertion was: The classics are poorly taught; therefore they should be discarded. But

[4] Quintilian I 4 17.

[5] See statistics at the end of this book.

other important subjects appear to be more poorly taught; therefore they should be—what? Discarded? No one thinks so. Why then should the less poorly taught classics be discarded?

*Are these good results due to the ability of the students?*

To this no answer is made except that the evident superiority, which is perforce admitted, is due wholly or mainly to the greater ability of classical students and not to their studies or teaching, and that it is the traditional tendency of such students to take classics which explains the result. If it is only "mainly" the reason, then the studies and teaching must account for a part of the result, perhaps a small part, but still something real. And if the charge of comparatively bad teaching is not abandoned, the nature of the studies must figure as the remaining contributing factor. If it is "wholly" the reason, the case is different. Let us suppose it is the whole reason. Then if it is no argument for the classics that it is customary for the abler students to take them, nothing more can be concluded than that this fact is not a proof that the classics are intrinsically valuable studies. And certainly the fact that the abler students prefer the classics proves nothing *against* their value. The abler students are the more intelligent as contrasted with the less intelligent, the mediocre and the dull. Ability commonly implies greater independence and probable decision of questions on rational grounds. It is the more intelligent who are the less obsequious to mere tradition. The fact that the abler students take the classics therefore looks at least like an indication that they do so not merely because their fathers did so, but because it is also an intelligent thing to do.

It is strange that the explanation, or rather the assertion, should assume that the students are the only important factor in the case. Modern science has taught us to accept the truth that there are always and everywhere two prime factors in the evolution of man—heredity and environment. What you are in yourself and what you get from outside—these two determine human life. In this case the student is the factor of heredity; studies and teachers are his educational environment. It is admittedly irrational to suppose that education is the one sphere of life where heredity and environment fail to act and react on each other. There is not the faintest reason for suspecting that a race of comparably able students environed for generations by teachers dispensing Old Norse and Esperanto would turn out as well as those produced in the study of Latin and Greek or French and German or Italian and Spanish. The reason is that the latter studies have proved themselves worth more for intellectual development. The same reasoning applies in other fields of study. History is worth more than heraldry, geometry than gauging, biology than conchology and philosophy than pedagogy. The explanation, then, is that both prime factors, the student and his environment of studies and teachers, always enter into the result. We are thus driven to conclude that in some appreciable measure classical studies do influence intellectual development, and the available evidence indicates that the natural effect of this influence is commonly good.

*Are the classics a useless mental discipline?*

The second objection to the classics is based on their nature as a useless "formal" discipline, having a "con-

tent" of value, indeed, but one which is sufficiently available in translations. We need not spend much time on the question of intellectual discipline, "formal" or of any other imaginable kind, if there is any. If "formal" discipline is used in some artificial or mysterious sense, we need not trouble ourselves to understand it. If it means teaching empty abstractions to the young or teaching in a stiff ceremonial manner or teaching the structural part of a study without clear illustration by examples, every one should reject it. If, however, it means something strict and regular, the meaning so commonly used in daily life, then it is not unfair to remark in passing that a most famous recent example of "formal" discipline is observable in the French defence of Verdun, whereas the confused retreat of a part of the Russian army, turned for the moment by agitators into a sort of debating society, is a good example of rather "informal" discipline.

"Formal" discipline and "content" are implied in varying degree in all studies which have intelleetual structure. In some it is a highly vertebrate structure, as in physics. In others it is of somewhat invertebrate structure, as in the history of American literature. Studies without an intellectual structure are not studies, though pleasant and useful as diversions from study. Of course, if the mind is not benefited by training in studies, "formal" discipline must go. Here we are in a region which is largely theoretical and where discussion without solution of the question at issue may be interminable. We cannot as yet put the minds of children under microscopes or flood them with X-rays and observe directly the effect of studies involving "formal" discipline. So

we must be content with indirect experiment and judge by what seem to be the effects in human experience. It is largely a question of observed habits and tendencies under different conditions, a question of probable evidence. We have to look about us for what light we can get from today and to inspect history for the rest. In so doing we may leave out the few cases of spontaneous genius or extraordinary ability. What of the mass of mankind? And what of the most reliable educational opinion? For ages it has been the view of most of the master thinkers that the human mind does not develop well without exercise and that it is developed most highly by mastering knowledge which is both difficult and valuable. In the world's conflict the undisciplined mind has generally been beaten. So we take sides with what has the preponderating weight of existing evidence to support it. If the opinion that "formal" discipline is irrational is sound, there is a foundation for establishing resorts for interesting information, but none is left for schools of education. At present we need not be troubled greatly. The war is waking in vigor the thought of discipline and duty, and the pleasant winding way is being deserted for the straight and narrow path.

Here we may be told we are all wrong because the newer psychology has experimentally disproved the idea of mental discipline. The subject is inviting, even alluring, but there is no space to go into it fully here. If anyone will read the writings of its advocates, he will learn much and will soon discover how imperfect and curious their notion of proof is.[6] There is, moreover, no

[6] For a keen critique read Professor Shorey's articles in the *Atlantic Monthly* on "The Assault on Humanism." They are reprinted as a monograph.

thorough agreement among psychologists that the proof is conclusive or even considerable. On this point we may quote an authority of distinction, Professor Stratton, former President of the American Psychological Association, who writes as follows—and since the war began:

"The mind is something far larger than the particular items which it observes and hears. It is a powerful organism, with powers latent, powers developed, powers lost through disuse. Any schooling seems to me a failure that overlooks this and regards the mind as a mere assembly of interesting ideas and of useful items of information. Education must train a person to will aright and to work, and to withstand inner and outer distractions, as well as to act not only with a sympathy for human beings near at hand but also with sympathy and with understanding of distant peoples and distant times. The findings of psychology all favor this richer conception of the human person, and it would be a grave mistake to suppose that the experimental work has proved that the idea of mental discipline is no longer tenable."[7]

Dean Lange of the School of Education in the University of California also writes: "Just because it is so radial in the specific disciplines it can be made to furnish (the results of which are transferable, at least to things that are human), Latin as an educational means has virtues that other subjects have not."[8] Meanwhile we may rest content as to this supposedly irresistible

[7] Bulletin 15 of University of California, 1914-1915.

[8] In letter to Professor H. A. Nutting, published in School and Society, March 3, 1917, page 62.

proof. It has not yet been furnished. "Saying so," as Lincoln was fond of observing, "does not make it so."

The newer psychology has some deep places and some deep thinkers—from Wundt onward. For these few there are scores and hundreds of others who splash in its shallows, muddying the waters and muddling themselves. Nowhere else does the "miscellaneously minded" man—not the universally minded, but the scatterbrain—disport himself more freely. Think seriously, if you can, of such observations as these: that young children step about like young chickens, rapid eating is a sign of fear and "Key declares that intense mental activity among the upper classes of Sweden has resulted in a marked increase in the tendency to nose bleed." Unless taken lightly, such things are disconcerting. They are better added to our treasure of the aphorisms of Josh Billings: "Rats originally came from Norway and I wish they had originally stayed there," "Chaucer was a good poet, but the trouble was he could not spell."

*Will not translations serve well enough?*

The statement that the classics are sufficiently available for modern purposes in the form of translations deserves attention. Good translations are the next best thing to the originals. A vast amount of knowledge and profit is to be gained from them. By all means let those who cannot consult the originals, and also those who can, read fine versions. Some of them are English classics, such as Dryden's Virgil, Jowett's Plato and Jebb's Sophocles. So far as full reproduction of the tone and spirit of the originals is concerned, readers of translations will lose least in the books of information, such as Arrian, Polybius, Manilius, Pliny the Elder and

Aristotle's Natural History, and most in the works of style and vision. They will get much and lose much in Herodotus and Thucydides and Tacitus. *Tam diu Germania vincitur,* wrote Tacitus, grimly summing up in four words two centuries of wars between Rome and the Germans. Who can put in English or any other tongue the strength and irony of this sketch in four strokes? No one has done so. Still, on the whole, readers of good versions will get nearest to the originals in the records of history and erudition. And "ancient history," as Bryce observes, "is the key to all history." They will be farthest away in reading the poets.

It takes genius to translate genius finely. Even then something is always lost. The best reflection is less than the full light, and often the best reflection cannot be obtained. The "disillusion" of translations, which are not actual works of re-creation, is easily proved, and the works of re-creation are very rare. The translators themselves are the best witnesses to this. Shakespeare in German is amusingly interesting to the point of merriment and Homer's hexameters in that tongue thump in heavy tumbling lines. Milton tried his hand at Horace and turned fickle Pyrrha into a Priscilla. Ben Jonson did best of all in his part version and part creation of "Drink to me only with thine eyes" and then translated the thrilling *Vivamus mea Lesbia atque amemus* of Catullus with graceful inadequacy. Where these failed,who shall succeed? And in prose who shall ever copy perfectly Livy's picture of the dying Tarquin or Cicero's words to his son at the end of the *De Officiis* or the battle of Thermopylae in Herodotus or Plato's serene look as he tells of the μάχη ἀθάνατος, the "immortal conflict" between the hosts of Good and Evil, or the

majestic rhythm of Augustine's *Visibilium omnium maximus est mundus; invisibilium omnium maximus est Deus.* In poetry the task is harder and often impossible. The unforgettable lines! how they haunt the memory by hundreds—living, appealing, enchanting. Take three instances at random. For splendor take the vision of Ennius of the night sky filled with stars:

*O magna templa caelitum commixta stellis splendidis*

or for still beauty Virgil's picture of the glittering moonlit sea:

*Splendet tremulo sub lumine pontus*

or for "eternal passion, eternal pain" Sappho's deathless

Φαίνεται μοι κῆνος ἴσος θεοῖσιν

exquisitely attempted by Catullus, but in vain, and the despair of poets ever since.

So translations are like photographs, best for reproducing drawings and worst for sunsets. It is as though one who could not see the French cathedrals or the pyramids should acquaint himself with good photographs and engravings or, in rare cases, with good paintings of them. But they are not the cathedrals or the pyramids. They are the next best thing, unless, as may be the case, the tales of travellers are better. These, too, are not the original, but a teacher's interpretation—sometimes very good and sometimes not. To bring the meaning of all this straight home, think of Cowper's lines on receiving his dead mother's picture:

O that those lips had language! Life has passed
With me but roughly since I saw thee last.

The picture was a precious reflection of his mother's face. It was not his mother.

Science tells us of "visible speech." There is another sort in the actual words of poets. Their melodies reveal visions, so that as we read we seem both to hear and see. There is mellow light as well as music in

Much have I travelled in the realms of gold,
Round many western islands have I been
Which bards in fealty to Apollo hold.

This is why tired moderns when reading Homer

Turn, and see the stars, and feel the free
Shrill wind beyond the close of heavy flowers,
And through the music of the languid hours
They hear like Ocean on a western beach
The surge and thunder of the Odyssey.

Are translations sufficient for the best modern education? No one doubts the originals are better than the best versions. Why, then, should not those who are willing to learn the original languages and enjoy the original literature in its original vigor have a really good chance and also be urged to take it? This is the day when we are told incessantly to "go to the sources" in science and history and studies generally. We should do the same with the classics and lead everyone who is able and willing along the ascending way to the ever flowing self renewing Pierian spring.

### *The true place of the classics*

The whole case for the classics rests on their proved value for modern thought and life. To repeat the evidence would take volumes and require a full examination of the history of modern education. A valuable exposition is to be found in Livingstone's recent book,[9] even though Mr. H. G. Wells thinks his arguments look

[9] "A Defence of Classical Education." Macmillan, 1916.

like "a pack of cockroaches fleeing before a light."[10] Viscount Bryce's last article,[11] the paper of Principal Stearns[12] and Professor Shorey's monograph[13] are three very recent contributions, all of unusual power. The addresses, statements and statistics printed in this book add material of the first value.

Out of many good statements of the last generation written in English, two are of conspicuous worth in the present situation, the plea of James Russell Lowell[14] and the unanswerable argument of John Stuart Mill.[15]

We may then turn, finally, to consider briefly the place of language, and especially of the classics, in a true theory of liberal education, the education which aims to develop the human mind to its highest excellence. It is clear that language has a necessary function. For all except those who lack the power of speech it is the one universal means, aside from the material works of human skill and the primitive signs and signals, of putting our thoughts in form and of telling them to others. Try to fancy, if you can, a state of things wherein there was no use of speech and not one word of writing or print. Nothing would be left except to do no more than the deaf and dumb can do unhelped by those who speak. All communication of thought

[10] *Fortnightly Review*, April, 1917. Mr. Wells, however, records himself as distinctly friendly to the classics: "The attack upon the classical education, it must be remembered, does not involve a denial of the high value of that education: It is an attack merely upon its exclusive predominance."

[11] *Fortnightly Review*, April, 1917.

[12] *Atlantic Monthly*, March, 1917.

[13] *Atlantic Monthly*, June and July, 1917; reprinted as a monograph.

[14] "Democracy and Other Addresses," pp. 218-239, Boston, 1887.

[15] "Dissertations and Discourses," IV, pp. 349-361, New York, Henry Holt & Co., 1874.

would be reduced to its lowest terms and generations would be needed to accomplish less than may now be done in a year. But today, as ever, language is the universal currency of thought. The gold and silver and baser coin of thought are the stored treasure of the mind, which circulates everywhere in the substitute of words. On this all sciences and arts largely depend—the concerns of business, all trades and professions, literature, government, home life and education. All the symbols of science are merely language in short hand. The written and spoken word rules the world. We are getting here to some ancient things, so ancient that they seem eternal. Language is the recorder and keeper of knowledge for the future. On this much of our progress depends. Good knowledge and use of language is of prime value for anyone who can talk. Without it a man is in some sense illiterate. Men are judged more by what they say than by what they think. In case of dispute over anything we say or write, the question is not so much What did he mean to say or write? but What is the meaning of what he did say or write? If we are called to make explanation, we must use language to do it or fall back on the dumb show of signs, winks and nods, or else stand dumb like "the horse or the mule which have no understanding." This is all so alarmingly elementary that it seems needless to mention it. But it has to be mentioned because it is imbedded so deep in tradition that we have lost sight of its immense importance.

Granting, then, that language and thought are the double foundation and that they are so interlocked as to become the single foundation for education from beginning to end, thought as the soul of language and lan-

guage as the embodiment of thought, audible in speech, visible in writing; what follows? That we ought to learn to use our own language, of course, and learn to use it as well as possible. This happens to be English. If it were Chinese, we ought to do the same in that tongue.

But for the mass of English speaking men, rare spirits excepted, the best use of English is not attained without knowing the sources whence our mother tongue draws its life. Nearly half of it is Latin. The better we know Latin, then, the better our use of English. And as the important modern languages, French, Spanish, Italian, are simply Latin in modern guise, Latin is the surest and quickest help to learning them. It is their ancestral home and largely ours also. Three hundred millions of our modern civilized world speak one or more of them, including much of western Europe, both Americas, Australia and many islands of the sea. Just now these parts of the world are drawn closer in the common cause of war. Their one common underlying educational factor in language is Latin. It is the key which opens many doors, and many more than we have mentioned. Such are the simpler practical reasons for studying it. There is little space to say more.

There is a higher argument for the classics which may be briefly indicated. If they are something by themselves and not a necessary element for the best liberal education of the western civilized world, they may be left to whatever fate time shall give them. But if they are somewhere necessary in a true theory of our western liberal education, if they are an integral part of our problem, the case is different and their importance is evident.

What are the things a really liberally educated man ought to know? Every human being who thinks, or who does not think, is faced by three commanding intellectual questions so long as he lives on this planet. The first is the problem of the vast world of nature, the world of things outside him, the largest and outermost circle, within which his whole life is spent. The answers to this problem, so far as given at all, are given in mathematics and the sciences. There are just four of them, all the others being combinations or derivatives. They are, first of all, mathematics for the underlying abstract relations of space and number, which exist everywhere. Next, rising from this, comes physics which deals with matter and energy. It extends to its sequel in chemistry, which deals with the analysis and synthesis of the elements of matter. From this rises biology, the science of all living matter. These four compose the central body of the sciences. They are best known by beginning with the foundation in mathematics and rising to physics and then to chemistry and biology. The liberally educated man needs, then, to know the elements of mathematics and physics and to get some chemistry and biology also, so far as possible. There is room in school and college for the elements of all four.

The second is the problem of mankind, the world of persons outside him, the smaller circle inside the vaster circle of nature. Within this large but lesser circle he must also spend his whole life unless he retires to a desert. Even there he may meet other men. The answers to this problem of mankind are written in what we may call history, the whole record of the collective activity of the race. Here the mother study, source of all the rest, is history proper, and for us the history of

our own civilization. Historians agree that the fundamental thing here is our own ancient history, the story of Greece and Rome. This the liberally educated man should know, at least in its important lessons. He should also learn as much later history as he can, including, of course, the history of his own land, which he always has a good chance to learn anyway. The elements of political and economic studies should also be known for their revelation of the fundamental laws of government and business.

The third is the problem of individual man, the tiny world of self, the centre of all our interest in the large world of mankind and the larger world of nature. Here is the fixed centre of all our education, whatever be its circumference. Here we learn to know ourselves first by learning to express ourselves in language and then in literature, thus also extending our knowledge outward into the ever near world of mankind. The one question, then, is what languages and literatures will best serve this end for men who live in the world of western civilization. The answer is easy. Our own language of course and if there is time, as there is, the languages which best train us in expression and the literatures which best help us to understand both ourselves and our civilization. More, if practicable, but this anyway. This means and can mean only one thing, the classics as fundamental to the best art of expression and the meaning of our civilization. The relation of the classics to this is not incidental but radical, like the relation of chemistry to biology or of history to political science. This means Latin for most, because of its more obviously practical values. It means Greek also for

many, for all who want the best, even the best Latin. For intellectually the two are one, and the one is Greek. It is the light of Latin. Without it Latin studies are cut off from a large range of illumination and support. Directly and through the lantern of Latin it has shone for centuries as a guiding light in the modern world of knowledge. It was not we nor the Romans, but the Greeks, who first wrote out and best wrote out the meaning of life as they saw it naively and clearly in the bright morning light of the springtime of the world. *Ver illud erat.* It was not we but they who first called the world to democracy and freedom. Do we care for these things? Do we care to know them well? Then study Greek and hear their story as they told it. The decline in Greek studies is most discreditable to us. We have been losing the one most perfect language and the one literature, besides our own, of the greatest value. Many boys who would be glad to study it cannot get the chance. It should be provided in all our considerable secondary schools and has a moral right to its historic place as a requirement for the Bachelor of Arts degree in all our colleges.

With even a fair elementary knowledge of the classics acquired, the way is cleared for mastering with greater ease the modern languages. At least one of these should be well studied. There will be time to do so.

The three problems converge in one. Man's knowledge of nature and mankind assembles in himself. What explains all three? Native belief in the unity of truth compels him to seek an answer. To help him in this he should learn the elements of philosophy which attempts the whole problem. Here the human mind attains its

widest range of vision. And if all his problems are not solved, he at least learns clearly what the problems are and what is their relation. Such a man will always be able to "collect his thoughts" and also to "know where he is." Such is the order and summation of the knowledge which liberates and liberalizes man. There is time to get a sound elementary acquaintance with it in school and college days. If it is not done then, it may never be done. It is too great a risk to leave to chance.

Thus the cause of the classics is part of larger questions—the unity of our higher knowledge, the best training for all who can take it, the welfare of our land. Mathematics and classics, science and philosophy, history and modern literature are the nobler sons in the household of liberal training. To have known them all well enough to like them all, no matter which one we come to like most, is the best liberal education.

We are called anew to duty in the time of trial and may well listen to voices of the past which bid us prepare well to play our part like men. We shall need their help. Hear, then, in closing, the brave words of Carlyle to the students of Edinburgh: "This is what the poet sings, a kind of road melody or marching-music of mankind:

Heard are the Voices,
Heard are the Sages,
The Worlds and the Ages:
Choose well; your choice is
Brief and yet endless."

# II

# ADDRESSES AT CONFERENCE

# I

## JOHN GRIER HIBBEN

President of Princeton University

I wish to extend to you a very hearty welcome to Princeton University on this occasion, and at the same time to thank you for your presence, for your interest and cooperation in the exercises of the day.

Some may think—I do not know of anyone present, however—but some persons may think that this a very inopportune time to hold a conference of this sort, in the midst of war and our preparations for war. I think it is a relief to us all to turn aside from our anxieties and our yearnings to consider such a subject as this; but more than that, it seems to me eminently appropriate for us at this time, confronted as we are by all the tragedies of this war, to look forward to the time when a new generation is to take up the problems and to bear the burdens of the new day.

We have resting upon us and upon all educational institutions a very serious responsibility, and we may well pause at this time to consider the nature of that responsibility in preparing the young men and women of the present day for the burdens which they will have to carry in the future, for their task in the upbuilding of a new world. For we hope—and take away that hope from us, nothing is left that is valuable in life—we hope and we confidently expect that it will not only be a new world, but a better world. In order that the

young boys and girls of the present day may meet their responsibilities and may be equal to their tasks, they must have a vigor of mind such as the world has not known and perhaps not even conceived. And it is because we feel that classical studies impart this vigor of intellect that we believe in them in any educational project whatsoever.

I saw a notice a few days ago in a paper that was prepared by a professor in one of our State universities, in which he drew attention to what he considered the sign and symbol of a new departure in education. With great satisfaction to himself and exaltation of spirit, he drew attention to the fact that in one of our older State schools they had brought in and placed upon the platform a collie dog, for the purposes of direct and minute and systematic observation on the part of the children—their attention being fixed upon the habits and pranks of this animal. And this professor drew attention to the fact that years ago in the tradition of education there had been a time when a lamb, "Mary's little lamb," had been driven out of the school and the children not allowed to observe its habits and idiosyncracies. This is the day, he said, of the collie dog—of drawing the attention of children to nature studies so that they can observe and note what they have observed.

I am entirely in sympathy, ladies and gentlemen, with bringing to the attention of our children everything in this bountiful, mysterious world of nature, every plant, every flower, every animal that can be presented to their attention and interest in every possible way. I do not think that there is any better device in the bringing up of a child than for him daily to associate with a dog in the family.

But when we come to ask the question: How in the theory of education are we going to impart not merely accurate powers of observation, not merely the meanings of knowledge, but how are we going to impart peculiar vigor of mind; how are we to give to our boys and girls an intellectual grip so that they may take hold of the essence of things, that they may have a mind that will penetrate beneath the surface and beyond the limits of a far horizon; how are we to give that vigor of mind that this age demands?—it seems to some very absurd that in order to fit the young men and women for the problems of the present day we should let them go back and study languages of the far distant past.

Why is it absurd? Let me draw attention not merely, or not at all, for the purpose of informing you: far from that; but merely to express before you my own belief, my own intellectual and educational creed. We are urging boys and girls to study these ancient languages because we believe that there was a period in the history of the world when man in certain eras lifted himself above merely animal existence and through the power of his mind established a new order of life which we are pleased to call civilized life. That in doing that with whatever other discoveries he may have made, and it was a discovery indeed, he revealed the secret of vigorous power of thought, and at the same time developed a language to express the forms of that thought.

Whatever we may say, ladies and gentlemen, ours is the civilization that has come directly from that original civilization of Greece and Rome. We have, it is true, inherited the content of the Hebraic civilization, but not the forms of Hebraic thought, because we have never accustomed ourselves enough to the Hebrew thought to

understand its forms to any great extent—its language. But with Latin and Greek it is different: we have studied the language, and in coming in contact with the original language we come in contact with those original forms of thought that have made our civilization possible. It is absolutely absurd to say they are out of date—because they have no time value; and they have no time value because they have a value for all time. These forms of thought, in the very language of Greece and of Rome, have a universal significance; they do not apply to any age; they have no geographical limitations; they are the forms that we are following (unconsciously it may be to ourselves) in every thoughtful enterprise in which we are engaged.

There can be no inherent opposition between such forms of thought and applied science. For instance, in our day the very men who are making the inventions, who are making the discoveries in all the fields of science, are using those great fundamental forms of thought which characterize our particular civilization—the western civilization—and they are the forms of thought that were discovered in that early age and discovered for all time and handed down as our particular inheritance.

Therefore we believe that our young women and our young men should come in contact with these forms of thought embodied in the very language which first gave them birth. The great plea in scholarly and scientific research is, Back, back to the source; do not drink of the stream as it passes before you, but follow it up to the fountain head in the great hills where it has its rise. There, in the original stream, is the life giving draught.

I do not know, ladies and gentlemen, how I can better

strike the key note of all the exercises of this morning and this afternoon than to conclude with the words which have come to us to-day from across the sea:

London, May 31.

Rejoice to hear energetic efforts being made in America to vindicate place of classical studies. Modern world needs ancient writings as much as ever, not only because they furnish perpetual delight as models of style but also because by their very unlikeness to modern conditions they touch imagination, stimulate thought, enlarge our view of man and nature. They enter into and have done much to instill what is best in modern literature and are the common heritage of civilized peoples, the permanent foundation on which the republic of letters has been built. Save them for posterity. Bryce.

## II

### Nicholas Murray Butler

President of Columbia University

[Letter read by Professor F. F. Abbott]

I am profoundly interested in the Conference on Classical Studies in Liberal Education to be held at Princeton University on Saturday, June 2. Were it not that the date falls at our own commencement season, I should certainly wish to be present to testify to my personal indebtedness to the study of the classics and to my strong conviction as to their supreme importance as elements and instruments of a liberal education. There is no higher duty resting upon us than to maintain these studies and constantly to improve them.

Their loss to our secondary and higher education would be an irreparable disaster at any time, but never more so than now when these studies are the only existing natural and common international basis for the study of the fundamental literary and philosophical elements in our western civilization.

Education truly conceived is spiritual growth toward intellectual and moral perfection, and it is not an artificial process to be carried on according to mechanical formulas toward a purely material end. There are utilities higher and utilities lower, and if the school in its zeal to fit the youth for self-support were to neglect to lay the foundation for that higher intellectual and spiritual life which constitutes humanity's full stature, it would sacrifice the higher utilities to the lower.

The decline in the number of those American students who study Greek and Latin and who have a reasonable familiarity with the history and literature of Greece and Rome is greatly to be deplored. No educational substitute for Greek and Latin has ever been found, and none will be found so long as our present civilization endures, for the simple reason that to study Greek and Latin under wise and inspiring guidance is to study the embryology of the civilization which we call European and American. In every other field of inquiry having to do with living things, the study of embryology is strongly emphasized and highly esteemed. What is now being attempted all over this country is to train youth in a comprehension of a civilization which has historic and easily examined roots, without revealing to them the fact, and often without even understanding the fact, that modern civilization has roots. Phrase making, scattered and unrelated information

and vague aspirations for the improvement of other people are, unfortunately, now supposed to be a satisfactory substitute for an understanding of how civilization came to be what it is. It so happens, too, that in the embryonic period of our civilization, man's intellectual and aesthetic achievements were on a remarkable scale of excellence. These achievements rightly became the standard of judgment and of taste for those generations and centuries that followed. When we turn aside from the study of Greek and Latin, therefore, we not only give up the study of the embryology of civilization but we lose the great advantage which follows from intimate association with some of the highest forms of intellectual and aesthetic achievement.

Conditions that now exist lay a heavy burden upon teachers of the ancient classics. Unless Greek and Latin are to become museum pieces, those who teach them must catch and transmit more of the real spirit and meaning of the classics than they have too often been in the habit of doing. Well taught, Latin and Greek have long since established themselves as of the first intellectual value both in school and in college and in the practical work of life. Let him who wishes to see classical knowledge in action read any one of a hundred passages in Morley's Life of Gladstone, or any one of a score of pages in the Life of his one-time colleague, Robert Lowe, Viscount Sherbrooke, or the Life and Letters of Benjamin Jowett, Master of Balliol.

Forty-four years ago I began, in stumbling fashion and not under the best auspices, the study of Latin and Greek. From that day to this my acquaintance, imperfect as it is, with the languages, the literatures and the civilizations of Greece and Rome has been a source

of increasing intellectual satisfaction and a helpful, often a guiding, companion, in every form of public and private activity in which I have engaged. A firm grasp upon the meaning of Greek and Roman thought and institutional life gives new significance to one's knowledge of natural science, a deeper meaning to one's participation in political organization and activity, and a sure standard for the determination and appreciation of excellence in letters and in art.

## III

ALFRED STEARNS
Principal of Phillips Academy, Andover, Mass.

It is a significant fact that the schoolmasters of our great boarding schools are almost without exception strongly opposed to the modern tendency in education which would exalt the practical and abolish that which cannot be shown to have a utilitarian value. By the so-called modernist this attitude is attributed to a blind or wilful adherence to tradition, to bigoted monasticism, and to a studied refusal to welcome radical changes in educational ideals claimed as necessary in order that education may be made to fit the needs of modern life. Just why we schoolmasters should be in such deadly fear of discarding worn out ideals and methods and accepting that which we are assured can alone make education effective and worth while has never been made clear. There must be some good and sound reason for our opposition—and there is.

It is the duty and the privilege of the schoolmaster to deal with every side of the embryonic man committed to his care. Unless he is blind he must recognize that

human nature has at least two sides. The intellectual side is ever before him. But there is the moral and spiritual as well. Only by the proper blending of these different elements in human nature and the studied development and training of each can well rounded and vigorous manhood be secured. Only by such all-round training shall we develop a human product that is something bigger and finer than a mere piece of mechanism designed to fit into a place in a practical world but devoid of aspiration and idealism, bereft of vision and imagination, forever denied the privilege of tasting the things of the spirit which alone is life. Well may thoughtful schoolmasters, dealing with youthful aspirations and potentialities, shudder at the prospect of an education that is essentially a denial of all that is finest and noblest in human nature.

Our modernists will doubtless deny that such caustic criticism is justified. But if close observation of some five thousand American youth furnishes any fair basis of judgment, I have no hesitation in saying that such criticism is none too severe, and that the dangers that lurk beneath the modern scheme may well arouse our deepest apprehension and call us forth to battle with all our might against proposals that threaten to undermine if not destroy the very foundations of true education.

What the modernist proposes in brief is this: that practical subjects shall dominate if not actually make up our curriculum; that the interest of individual youth shall be the starting point and guiding principle of our labors and that subjects or subject matter not attractive *per se* shall be largely abolished; that the idea that there exists such a thing as mental training or mental disci-

pline shall be forever discarded; that the history and literature of past ages shall become a closed book to our children save as isolated facts may interest or be made to serve a practical end; that the coming generation in fact shall be granted no fair opportunity to know that human nature through all ages has been human nature still, wrestling with eternal human problems, inspired by eternal human hopes and aspirations, progressing just in so far as it has caught and for a moment held spiritual visions and has grasped and mastered eternal truths. All this and much more the modernist would deny our children that they may be made more efficient in a temporarily practical world.

If man is still a partaker of the spiritual nature—and who of us will dare deny it—the cravings of that spiritual nature must still be satisfied. If modern human kind alone are not to run contrary to all the teachings of history and nature, rugged character, and intellect too, must be tested and developed under conditions that call for hard and at times distasteful effort. If the experiences of every day life are not to be wilfully ignored we must continue to recognize the truth that youthful "interest" is seldom a safe guide and may and often does point the road to weakness and disaster. And finally, if youth is to emerge successfully from its hard and constant struggle against the mighty forces that seek to undermine its strength and cloud its higher vision it must be fortified and inspired by the example of those who through the passing ages have fought its fights, have dreamed its dreams, and have won its victories. As a basis for the accomplishment of these desirable ends nothing has yet been offered us that can properly supplant a broad classical foundation.

Whatever its faults, the old education has sought for its followers a higher than a practical goal. Without denying the value of the practical it has recognized in every youth the presence of the spiritual, and it has sought to call that vital element in human nature into a larger and fuller expression; to lift humanity above the commonplace into the realm of ideas and ideals, and to satisfy, or at least point the way to satisfaction to hungry human souls. Deny the reality of this realm of the spiritual in human life and you deprive mankind of every incentive to virtue, to justice, to chivalry, to heroism, to sacrifice—of all those things of the spirit which through all ages men have valued more highly than things material, have counted more precious even than life. Banish from our schools today the necessity and privilege of dealing with the spiritual nature and you rob us of all that is finest and most inspiring in our work; all that prompts to devotion and sacrifice; all that to any high minded and earnest schoolmaster makes his work the noblest of all professions, the highest of all human callings.

Scenting this modern tendency now running riot in our educational world Emerson, years ago, sounded a note of protest and alarm. "Let us not forget," he said, "that the adoption of the test 'what is it good for' would abolish the rose and exalt in triumph the cabbage." God spare us from the day when a sordid materialistic gluttony shall leave us no room for or no appreciation of the beauty, the fragrance, and the inspiration of the things of the spirit.

## IV

ROSCOE POUND

Dean of the Law School, Harvard University

It is a bit humiliating to those who had thought the law a learned profession to hear a lawyer of high standing at the bar say gravely to the highest court of the land: "Your Honors, this is a proceeding *in rem* and the *rem* is before the court." True, the substance is more important than the form, and if one or the other must be neglected no doubt it should be the form. But something more is involved. One whose training has been so defective as to allow him to overlook the difference between a nominative and an accusative is not unlikely to overlook other matters which do not lie upon the surface of things—and it is the business of the lawyer not to overlook anything that may bear upon the affair in hand.

It is not merely the obvious need of study of Latin in order to understand law Latin, and the Latin maxims and phrases of which the books are full, that leads teachers of law to insist upon the importance of classical training. It is the lawyer's every day business not only to reason soundly but to express his ideas clearly and accurately; to make what he has put on paper so clear and so definite as to convey his precise meaning to disputants "fired with zeal to pervert" and thus to forestall controversy. It has been said that a great deal of bad law is simply bad English. In like manner a great deal of bad law making, a great deal of bad pleading, and a great deal of bad conveyancing is simply bad English, in the sense that the writer has failed to formulate accurately what he had in mind and to express it

with precision. Language is the instrument of thought as well as the medium by which thought is preserved, and one whose philological instincts are undeveloped is not likely to think critically nor to express his conclusions exactly.

There is no better way for the student to train himself in the choice of the very word that will fit his thought than by translation from Latin and Greek. Thus he develops habits of analysis, habits of discriminating choice of words, habits of accurate apprehension of the meaning which another has sought to convey by written words, which lead to power of expression and to power of clear thinking. Such habits are worth more to the lawyer than all the information which a modern school may hope to impart.

In arranging the professional curriculum we have constantly to combat the fallacy that no one is bound to know anything unless he has had a formal "course" in it; that every nook and corner of the law must be explored for detailed information with the aid of a teacher in order to prepare the student for the bar. In contrast the academic law school seeks to train a body of men who have so mastered the art of legal reasoning, and have so solid a foundation in legal science, that they may approach new problems in new fields and old problems in unfamiliar fields with assurance and may achieve results of real value. The same fallacy underlies current ideas of preparation for study of the law. It is said that there is so much to learn in the lawyer's special field that specialization for that vocation must begin a long way back; that many things which he ought to know must find a place in his preliminary training or be forever neglected. Hence, history, economics, the so-

cial and political sciences, and one might say equally, the physical and the natural sciences—"things that he can use"—are to replace the classics completely. But what he will use chiefly is his mind. The best foundation for professional training is mental habits formed in school and college. The requisite habits are not formed by special courses in everything that a lawyer needs to know.

Mr. Justice Holmes has said that it is the business of law schools to teach law in the grand manner. The social demand is not for acute legal tradesmen, but for great lawyers who will be useful to society as well as successful in their practice. The call is for something more than men who know their books of practice and their reports. It is for cultivated men who have been taught to use these books as means, and have the trained minds, the imagination and the ideals to employ these means for great ends. No one need wonder that the legal profession has come to be somewhat discredited in a time when the education in the humanities that made the great lawyers of the past has become discredited in the profession itself; when, as a great judge has put it, "there comes from the bar the new gospel that learning is out of date, and that the man for the times is no longer the thinker and the scholar, but the smart man unencumbered with other artillery than the latest edition of the Digests and the latest revision of the Statutes." The law has been made an instrument of justice by men trained in the humanities like Lord Mansfield and Lord Selborne, not by men of exclusively professional education like Lord Kenyon and Lord St. Leonards.

And so the teacher of law prays for students of good

mental habits who can analyze, who know how to make, verify and discard a series of working hypotheses as those must who translate Latin and Greek at sight, who can see the relations of word to word, and can perceive that two and two make four and say so accurately, instead of writing pages of plausible moonshine to prove that they may make five.

## V

### Lewellys F. Barker

President of the American Neurological Association, 1916
Professor of Clinical Medicine, Johns Hopkins University

Of liberal education Medicine may have some right to speak, for she has demanded it as a prerequisite of those who are to enter the medical profession; and medical men, coming as they do into close contact with the lives of all sorts and conditions of men, have excellent opportunities to observe the effects of different kinds of education upon human life. It is now generally admitted that an education to be liberal must include natural science on the one hand and language, literature and history on the other—knowledge of the world around us and knowledge of human life, of man's capacities and ideals, of his longings and achievements, of his political theories and social aims, of his appreciations of the beautiful, and of his systems of faith and worship. Now physicians, from the time of Hippocrates on, have known how to value a knowledge of things as well as a knowledge of words. When classical studies were predominant in education, natural science being neglected, medicine held up the hands of those who urged the objective study of external nature, though it was, it is true,

a great humanist, Scaliger, who, in the sixteenth century, in a letter to a physician, Jerome Cardan, most concisely expressed the idea of "a true cognition of the things (or objects) themselves, taken directly from the things themselves."* It is not probable, I think, that medical men will ever favor neglect of the "discipline of things" to the injury of education. At present some of us in medicine feel that education is in danger of becoming illiberal in the other direction, first, because schools are growing remiss about humanistic rather than about physical subjects and, secondly, because of the tendency in the colleges to displace liberal by vocational education. A protest seems due against the unwise subordination, in the curriculum of liberal studies, of language, literature, history and philosophy. If these subjects, which are fully as important for the welfare of individuals and nations as are the physical sciences, were to be neglected, all human progress would be endangered, and medicine as well as other sciences would suffer. Furthermore, in our desire to be "practical," to be "efficient," to be "modern," we must take care not to become narrow minded and materialistic, not to become unimaginative and unsympathetic, not to sacrifice a greater good that is remote by striving too eagerly after a lesser good that seems near. Science and thought have been created by men who desired to know, not in order to make money, not in order to become famous, but simply that they might know. Let us not forget the old maxim that "to seek utility everywhere is most unsuitable to lofty and free natures." To be liberally educated a man must have gained a belief in the value of knowledge, have learned the methods by which true

* Rerum ipsarum cognitio vera e rebus ipsis.

knowledge is acquired, and have applied these methods in his studies of nature and of man.

The idea of evolution, which we owe to science, is a conception so fruitful that today we regard any study as superficial that does not include an examination of development and of origins. Even in our professional curricula, genetic studies dare not be ignored. The modern medical student must study not only the anatomy of the adult human body but also its embryology. To understand what we see, we must know how it has come to be. Thus appreciative of the study of sources, men of science should be the last to undervalue the study of antiquity. For just as modern religions are largely traceable to the ancient religions of the Hebrews, the Greeks and the Hindus, so the languages, the literature, the politics, the laws and the philosophy of our times are descendants of those of the ancient world. To understand what we say, hear, read, think, feel and do in America today, it is of help to know what was said, written, thought, felt and done when human life was less complex than it is now. In this connection a knowledge of the civilizations of Greece and Rome is, above all, of aid, for it is upon them, in the main, that our own social development is based. Thus from Greece we have inherited our literary forms, the key thoughts of our intellectual life, and the artistic creations that determine our standards for the discernment and enjoyment of beauty and other excellence; and from Rome we have derived many of our ideas of law, of order, of organization, of administration and of statesmanship. To Greece and Rome together, then, we are very largely indebted for the foundations of our intellectual life and of our personal and national character.

The study of antiquity and of the streams of influence that flow down from it to our own times is, therefore, an essential part of an education that may be called liberal.

Though much of the knowledge of the ancient world referred to can be obtained from courses in the classics independent of the study of the Latin and Greek languages, I am convinced that the time and energy spent in learning these languages by young persons who have capacity for language study will be very profitably employed, provided the curriculum is wisely constructed and the teaching is done by men of mind who know how to appeal to the mind. Of course no one desires to support bad teaching of the classical languages, or teaching that is repulsive to students and disappointing in the results it yields. No one, today, favors a predominantly classical education that excludes the teaching of our own and other modern languages, modern literature, modern history, and the sciences of nature. Nor does anyone wish to swamp the time table of our schools with classical courses so as to cripple the teaching in non-classical subjects. The danger in this country is quite in the opposite direction. Undoubtedly, the study of the classieal languages, especially of Latin, is of value in helping one to learn to think and to express one's self clearly and precisely in his own tongue. It makes, too, the study of French, Italian and Spanish a very simple task. Acquaintance with Latin grammar, because of its exactness and of the variety of its forms, makes the understanding of the grammar of English and of a number of other languages easy. Further, a large part of our English vocabulary has been directly derived from Latin and Greek sources, another part in-

directly from them through the Romance languages. What a short cut to the meaning of English words a knowledge of suffixes, of affixes and of roots affords! This is true even of the vocabulary of ordinary life, but when we recall the terminology of the sciences, especially of medicine, we must regard Latin and Greek as actually vocational subjects for the study of science and for the prospective doctor of medicine. Many a physician who entered medicine, as I did, with "little Latin and less Greek" regrets that he had not more. I would urge every young person looking forward to medicine as a career to devote some time to classical studies. Indeed, I shall go farther and say that a total inaptitude for the study of Latin and Greek should make one gravely question his fitness for a medical career. Some men, it is true, have achieved success in medicine without any study of either Latin or Greek. But a knowledge of the classics will give a man a larger chance of success than he could otherwise have. The physician who has gained the culture and the mental training that result from a study of the literature and the history of Greece and Rome is less likely to have a narrow view of life, to be vulgar, to be indiscriminative, to be vacuous, or to be unsympathetic than he would have been without these advantages. If his studies have been thorough, he will have done much toward avoiding the plight of Alcibiades, who had to confess to Socrates that he had "neglected the needs of his soul." Perhaps, too, he will have caught a little of the spirit that Aphrodite, "the Cyprian," was to bring to the Athenians, "a spirit of wisdom, of passion and of excellence."

## VI

VICTOR C. VAUGHAN

Chairman of Committee on Medicine and Hygiene in the National Research Council
President of the American Medical Association, 1914
Dean of the Medical School, University of Michigan

Education has been defined as the development and modification of behavior through experience. Animal behavior is determined by the nature and training of the nervous system. This is the machine which must be put into operation, and man surpasses other animals in the excellence and capabilities which he possesses in these directions. Systematic education should begin with the training of the five senses because it is through these avenues only that we acquire knowledge. Through them, the cells of the brain cortex are brought into relation with the non-ego. This connection with the outer world is made in the infant soon after birth and its training and development constitute the basis of all education. It is desirable that perceptions should be accurate to the finest detail, that the impressions made upon the brain should be sharply defined and so firmly fixed that they may be retained and reviewed in the future and that they should be properly correlated, so that their relationship may be correctly determined. To the extent that these conditions are fulfilled, accuracy of perception, reliability of memory and soundness of judgment are secured. These are the fundamental principles in all mental development. Defect at any step of the process disturbs the whole and lessens the value of the final product. Faulty observation leads to inaccuracies in memory pictures and errors in judgment. The nervous mechanism of man is in no indi-

vidual so perfectly developed that he escapes error in all his mental processes or reaches perfection in any. The purpose of education is to reduce these defects and to improve mental processes so far as possible, and success is limited by the natural talent and adaptability of the student.

Since the avenues in which mental training may be directed are unlimited, and since diversity of learning is desirable and beneficial, it seems evident that educational lines should be multiple and lead to all points of the compass. It is not a matter of regret to me that the old time classical curriculum is no longer obligatory on all college men, but it is a matter of regret that the study of Greek and Latin is now so generally neglected. It is the purpose of this brief paper to point out some advantages to medical students in the study of these dead languages.

One cannot be a thorough student of any subject without giving close attention to detail, and the inflections of noun, verb and adjective in Greek and Latin render this necessary. Moreover with the close attention that the student must give to variations in the structure of words he soon perceives that these indicate variations in shade of meaning and then the joy of study takes possession and leads to enthusiasm. Observation is sharpened, perception becomes more delicate, and the student finds an increased pleasure in the intensity with which he seeks to interpret the author's meaning fully and correctly. This habit of close observation, of attention to detail, of looking for fine distinctions and shades of difference, and the alertness of mind awakened in an individual by these habits, prove of inestimable service to him both in his experimental work in his laboratory

and at the bedside of his patient when he becomes a scientific medical man. Indeed, the progress of medicine is determined largely by the accuracy and precision with which observations are made. The careless or the superficial man is not suited either to the practice of medicine or to the conduct of experiments for the elucidation of medical problems. It is the painter who brings out detail, and not the impressionist, who is needed in scientific medicine. William Harvey, whose keenness for investigation and accuracy of observation led to the discovery of the circulation of the blood, after many years devoted to the study of the classics, gave five to the study of medicine, and the fitness of his preparation was demonstrated by his work. I do not claim that the qualities of close and careful observation can be attained only by the study of the classics and still less am I prepared to hold that all who study the classics attain these qualities. But I do hold that carelessness and superficiality are incompatible with the thorough study of Latin and Greek. The pursuit of any study without close attention and accuracy of observation has but little disciplinary value, and failure to secure these essentials is more frequently the fault of the teacher than of the pupil.

The practical value of Greek and Latin, as aids to the exact meaning of scientific terms, as shown by their derivations, is denied by no one. But some claim that the giving of from four to six years, or even more, to the digging of Greek roots and the trimming of Latin stems is too big a price to pay for the result. Possibly this is true if the student gets nothing but a knowledge of etymology from his classieal studies and if the time and energy given to the classics are so excessive that he

cannot seek knowledge in other fields. The fundamental training of every one who aspires to be listed among the educated should be broad, and I have elsewhere ("The Nature and Purpose of Education") given my conception of what it should cover. In an experience of more than forty years as a teacher of medical students I easily distinguish among my auditors those who know Greek and those who do not, especially when I use scientific terms, such as a "toxicogenic bacillus" or a "pathognomonic symptom." I see the eyes of the former fill with the light of comprehension, while those of the latter are closed in ignorance and mystification. Constant consultation of the best dictionaries (a habit seldom acquired by medical students) fails to supplant the defect in preliminary education.

It is claimed by some that the use of Latin names in medicine and generally in science is pure affectation and should be discontinued. This statement could be made only by one grossly ignorant of the facts. The word "salt" may mean any one of a thousand compounds, but "Sodii chloridum" and "Magnesii sulphas" are definite and capable of only one interpretation, be the reader English, French, Italian, Russian, Spanish or German. Common names of plants and animals vary in different sections of the same country, while the scientific designation is the same the world over. The language employed by an exact science like chemistry, botany or bacteriology must be one which has already crystallized, and not one which means one thing today and may have quite another meaning a year from now, or even a century in the future. We must not forget, even in the pursuit of the rapidly growing modern sciences, that there is a biology of language and that it like every-

thing else mundane comes into existence, goes through a process of evolution, suffers modifications from its environment, and does not crystallize into exactness until it is no longer used orally; and not until this period is reached and it is no longer subject to modification, does it become the suitable form for exact, scientific expression.

## VII

HENRY H. DONALDSON

Chairman of Committee on Anatomy in National Research Council
President of Association of American Anatomists, 1916-1917
Professor of Neurology, The Wistar Institute, Philadelphia

It is my privilege to outline, as best I may, the relations of biology and biologists to the classics.

In naming plants and animals, in systems of classification—and for parts of the body—biologists use Latin and Greek as a lingua franca. It is true that when left to their own devices they sometimes produce monstrous names—but the more cautious among them usually invite a classical colleague to be present at the christening. It is the safer plan. Doubtless there was some classical literature on biology—but very little of it has been preserved. Aristotle's "History of Animals" is a conspicuous example of the best. It is interesting reading though entirely descriptive, yet some of the observations are remarkably close.

For the biologist then we may say that the content of the classics is small and that his use of the languages is for the most part limited to a nomenclature which is purely technical.

To be sure those fortunate enough to have acquired

an easy reading knowledge of Greek or Latin, or of both, have access to a mass of literature closed to the majority. Nevertheless the best of the ancient writings are to be found in some modern language and are open to us all.

From the side of biology, the science, therefore, it is possible to make but a slender argument for the teaching of ancient languages to youth in general.

If now we turn to the biologist, the man, who must perforce transcend the limitations of his science, the case is altered. The broader concepts with which the biologist deals are often very ancient and, like other men of science, he is called upon to use some rather comprehensive ideas. He recognizes that while knowledge has grown and beliefs have changed in the course of the centuries, the method of handling ideas, our logic, is much the same. The history of ideas and the formation of beliefs are therefore to him matters of importance for the interpretation of modern thought, best made when its development is understood.

It is worth noting perhaps that biologically speaking we are very close to our classic past. If we call it 2500 years from now till then, it follows that only twenty-five human lives, twenty-five centenarians holding hands are needed to bridge the gap, while from seventy-five to one hundred generations are all that separate us here from the fellow citizens of Solon. From the standpoint of the stock-breeder the interval is trifling. To neglect these forerunners and their times would seem almost like showing disrespect to the elders of the family, for to these and to their times we can trace the beginnings of our peculiar literature, philosophy and art. These things are the great heritage of western Europe and her colo-

nies, and the man who would contemplate the thought of today must view it against the background of antiquity. That background must be preserved to us and there should be those set apart to illuminate and to interpret it. This has always been the function of the classicists, the men of broad culture, and to-day when intellectual interests are diversified as never before, the need for such scholars is even greater than in times gone by. The effective specialist of to-day is no longer a man who aims at intellectual aloofness, but on the contrary is one who seeks to focus on his special problem the wisdom of the world. Nothing is alien to him, not even such things as lie outside the intellectual realm. It is in the field of literature, where the classic models are found, that we make contact with the various forms of the emotions and the acsthetic feelings—a contact needed for the expansion of any normal soul.

In biology to be sure the expression of the emotions tends to appear most strongly in controversial literature—but the nature lover is not unknown and the aesthetic feelings play a much larger part than one might suspect, for beauty is rarely missed, even in the laboratory.

To be worth while, a discussion such as this requires that we arrive at some sort of conclusion—even though a very general one.

Considerations familiar to most of us make it very evident that there is no panacea which can be used in the art of education any more than in the art of medicine. Each individual calls for special treatment. It is certain too that there always will be those to whom the wisdom, the beauties and the historic associations of the ancient masterpieces will appeal, and who as stu-

dents prefer the classic field—but it is just as certain that there will always be others to whom the natural sciences are of absorbing interest. The relative numbers in these two groups have no bearing on our argument. For the natural science group Latin as an aid to the comprehension of their own language and those of the Romance family is indicated, but I would not confuse the teaching of Latin for this purpose with a cultivation of the classics.

For this great work we must depend on those who are or would be masters of the ancient learning, and whose significance and dignity in the university world protects them from the dust of passing gusts. The biologists most certainly need such colleagues and both have their place on the faculty of any university presenting a curriculum by which the real needs of every student can be met.

## VIII

### Charles H. Herty

President of the American Chemical Society, 1915-1916
Editor of *Journal of Industrial and Engineering Chemistry*, New York City

The American is temperamentally disposed to look for "short cuts." In chemistry this exhibits itself in the desire for early specialization, at the necessary sacrifice of well rounded undergraduate training. Recently I was asked by a man, blessed with an abundance of worldly goods, whose son expected to enter college in a few months—"Is it best for my boy to specialize in physical, organic or inorganic chemistry?" He seemed surprised at the answer—"Give the boy a sound and

broad education and the matter of specialization will take care of itself."

In such preliminary education surely the classics should play an important part if for no other reason than that thereby clarity of expression is assured. A brief editorial experience has shown too well how often inability to write correctly is accompanied by or perhaps is the evidence of inability to think correctly. It would be interesting to trace the character of the training which constituted the ground work in such cases.

To the young man looking forward to chemistry as a profession, the patient and thorough drill of courses in the classics is too often irritating and seemingly a waste of time. He is forgetful of the mental gymnastics whose prototype in physical development he so willingly recognizes; he fails to realize that the day is coming when, for the solution of some important problem for which he is responsible, he will need an elastic thinking power, qualified to hold fast to essentials and to cast aside non-essentials; he will have to think true, to reason accurately; and, with all these well done, he will have to prepare a report either for the scientific journals or for a Board of Directors, and upon its writing he will be judged. It is worth the struggle of the earlier years to make that showing all that it should be.

There is another side, however. We call for classical training; and yet we do so almost in despair. It is a fact that the young men who undertake to study chemistry are in large measure inadequately prepared in the graces of expression. Many of them are lacking in good taste. How to establish it in a fallow mind is a question that men of science do not know how to answer. Unfortunately an arts degree is no sufficient guarantee

of it. Very often home training in an atmosphere of general culture will provide it, with no more background than a course of training at a secondary school. I think it fair to state that when a knowledge of human reactions is gathered from the study of the classics the training may be said to be good, but whenever the classics are taught as so much punishment at hard labor, teachers of chemistry find no advantage in such work.

Unfortunately it is not given to us to select our students, we must take those that come to us. We want them to be whole men, and when they are not we can do no better than scold; which is usually to no effect and is without profit to anyone. Nevertheless, when we consider the many students that have passed before us in review, the outline of the effect of the classics comes before us. It is not necessary here to speak of the intellectual pleasures which arise from daily habitation of the atmosphere of thoughts of the great masters of the past, or of the broadened sympathies toward mankind resulting from an intimate knowledge of the literature of the past. I do, however, gladly bear testimony to the fact that after many years of teaching chemistry the record of attainments of those who have worked with me points clearly to the fact that, taken as groups, the young men who specialized in chemistry after completing undergraduate courses including much Latin and Greek are they who have eventually risen highest.

If we are to rise above mediocrity in our scientific work, surely it must be upon the solid foundation of a broad and liberal education which will give us men possessed of lively imaginations, clarity of thought, grace in expression and souls imbued with deepest sympathy for the human race in all its struggles upward.

## IX

WILLIAM BERRYMAN SCOTT

Member of National Academy of Sciences
Vice-President of the American Philosophical Society
Professor of Geology, Princeton University

Mr. Lecky, the historian, says somewhere that in an ideal state of society provision will be made that every child shall have an opportunity to develop the best that is in him, and to receive a training in those lines where he can best serve his kind. Of course, it need not be mentioned that we are very far from such an ideal state of development as that. For most of us and for most of our children, who are not content merely to be a cog in the industrial machine, education has to be a compromise between the training for making a living and the training for making that living worth while after it has been made.

It is upon this second point that I wish to lay stress. Of course, there is a great deal to be said and much has been said about the purely vocational value of good training in Latin and Greek, and I may add my own testimony and experience to that. For thirty-seven years now, I have been teaching geology here, and my experience is personally like that of many other teachers of science that, taken as a group, and of course with individual exceptions, the men who do best are those who have had a broad, thorough training in Latin and Greek. I found the same true in Germany. I had the great privilege of being the pupil in Heidelberg of Carl Gegenbaur, and he said to me one day, "When a new batch of students enters my dissecting room it does not take me more than half an hour to tell the gymnasia

men who studied the classics from those who have not studied them, because of the incontestable superiority of the former."

Of course, it is true that such testimony is by no means conclusive. There are all sorts of complicated factors involved in that question—the question, for instance, of a boy's social environment, so that the best boys are given a classical training. We have a large body of testimony to the effect that the ideal training for men who are going to make science their profession is the old fashioned one which is now so generally called into question. But that is not the point to which I would refer particularly.

Has it ever occurred to you that these ultra-modern ideas on education are really a return to barbaric and savage methods? The only idea in training the young man in a red Indian camp is to make a good hunter and good warrior out of him: that is vocational training. The ancient Persians had an education for which a great deal may be said: to ride, shoot and speak the truth. That speaking the truth represents the ideal side of their education. What is your living going to be worth when you make it? The vocational training is one which says that the entire building consists of the foundation. The real value of an education is to make a man, not merely to make a useful engineer or school teacher or what not but to develop the best that is in him and to make his life worth while to himself and all the community in which he lives. Now it is that aspect of the case which I think deserves the fullest consideration and emphasis, more particularly now because of this terrible ca trophe of war upon us and upon the whole civilized w »l .

With the terrible slaughter that has gone on, we find a great depletion in the ranks of schools, and when this war is over and the great reconstruction comes about or is undertaken, the cry for efficiency is going to be louder than ever—trained men to reconstruct. That is all right—very necessary. But is that all? Will our task be accomplished when the ruined houses and churches have been rebuilt; or is it not vitally essential that we shall transmit the torch to our descendants; that in this awful hurricane we shall shelter that torch to prevent its being blown out?

For all the purposes of intellectual enjoyment everything depends upon background. What does one's reading suggest? Is it merely the literal meaning of the words, or are pictures called up by allusion and metaphor, rich in significance and beauty? That is the difference between a cultivated and an uncultivated man. However good an engineer or lawyer he may be, it is that background which more than anything else enriches the mental life and adds to the joy of living—and that alone can be obtained from the study of the classics.

Barrie says somewhere that the only man of the nineteenth century (he said it in the nineteenth century) who had anything to say was the scientific man; and he was the only man who did not know how to say it. For a very good reason, for too exclusively has our scientific man been trained in scientific work from the beginning. The result is that when he starts to write English he often writes a barbarous jargon that is almost unintelligible. A great deal of the scientific work which is done by the scientific bureaus of the Government is made all but useless to the man who tries to use it, be-

cause the writer has never been trained in expression—does not know how to use his or any other language. The result is confusion thrice confounded.

It is said of Artemus Ward that he once gave a lecture in London on Africa, and after an hour's rambling talk about everything but Africa, he said that Africa is celebrated for three roses, the red rose, the white rose and the negroes. That is about the connection of my remarks with geology. Still, there is a connection. The one great lesson that geology has to teach, stated very briefly, is the law of continuity. The one lesson we attempt to impress upon our students is that the history of the earth is one of unbroken continuity, in which each stage has developed out of the preceding. It is preeminently the merit of the modern historians to impress that same lesson as to the history of mankind. In all the history of mankind by far the most significant is that of the ancient world—the history of those ancient civilizations grouped around the Mediterranean. Without a comprehensive and sympathetic understanding of those civilizations any conception of modern history is bound to be defective, because so much of the modern world has been directly derived from those Mediterranean lands and is to this day profoundly influenced by them.

These are just a few random remarks to express the reason for the faith that is in me. Nothing more disastrous could happen in the life of the race than for us to go back to the pre-Renaissance period when Latin was an ecclesiastical study and Greek had been almost forgotten.

## X

LEWIS BUCKLEY STILLWELL

Member of National Research Council
Past President of American Institute of Electrical Engineers
Consulting Engineer, New York City
[Read by Dean Howard McClenahan]

Experience and observation during thirty years practice as an engineer have convinced me that the study of Latin is of great practical value to the young man who expects to be an engineer and who possesses sufficient innate ability to become in any sense a leader in his profession. The same is true also of Greek, although probably in less degree. And as regards the effect upon the well being of the community, the development of one real leader is worth more than that of a hundred—perhaps a thousand—ordinary workers.

Material efficiency is excellent. We need in America a vast army of trained artisans, we need competent technologists to direct their efforts, and our technological schools are producing these in numbers which apparently are adequate to meet the demand; but, in general, these men know only mechanism and chemistry, and their effectiveness in their profession and as members of society is limited, unless either in their early training or later through influences other than those of their school days they have established for themselves other points of intellectual contact with the world about them. And while many such possible points of intellectual contact are available, there is no other so suggestive, so refreshing, so stimulating by very contrast, as those which touch the lives of men who lived when the world was young and which bring to us their thoughts recorded with unequalled clarity and charm.

I have no statistics to submit, but I believe it to be true that were we to ascertain the facts regarding the leaders of the engineering profession in the United States today, we should find that a large proportion of them either have had some instruction in the classics, or by their own efforts through other channels have secured for themselves something of that broad view of life and thought and experience which is essential to adequate perspective, and I am very confident that at least seventy-five per cent of these men, if asked in what way they could wish their early education had been different, would indicate their preference for more of cultural study rather than for more of natural science. The engineer who becomes a leader must be competent to deal not only with matter and energy, but also with men. He must be able to influence other men. He may have found the perfect solution of his problem, but before he can create the structure which he has conceived, or release, direct and utilize any part of the energy of the universe, he must convince others, and the man who knows only structures, mechanism and the laws of thermo-dynamics is seriously handicapped.

To mention a specific reason why the scientist and the engineer should be well drilled by competent instructors in at least one inflected language, my observation has led to the conviction that the systematic and painstaking translation of Latin, for example, is of particular value in impressing upon the mind the great importance of precision in the expression of a thought. Particularly in science and in engineering is it true that the best word must be found. Mere approximation is not only inadmissible, but often worse than useless. It is not sufficient that an engineer's report be so written that

it can be understood; it should be so written that it cannot be misunderstood. And unquestionably it is a fact that inadequate and inaccurate statement is one of the most common and serious handicaps of the average graduate of a technological school.

If, from the purely selfish standpoint of its effect upon his own career, time spent in studying the classics is justified in the case of the student who aims to become an engineer, by its results in widening his intellectual horizon, in adding to his all-round efficiency in dealing with men, and in teaching him accuracy of expression, it is still further justified by its indirect effect upon the community as a whole. Few men in this age—certainly no engineer—will hesitate to emphasize the great value of studies in natural science in training the mind. Observation, analysis, inductive reasoning in this field are realities to the student. Here he best learns to observe closely, to ascertain facts with precision, to measure cause and effect, to think quantitatively. But the world needs accuracy of observation, precise ascertainment of facts, correct judgment of cause and effect, and quantitative thinking, not only in the laboratory of science, but in the forum where public opinion is formed and in the hall of legislation. The man who is trained in science is rarely a citizen who is easily misled. His ability to think straight, to analyze, to foresee results, to provide means adequate to attain desired results, should be made as effective as possible in the community. To attain his highest efficiency he must express himself not only in the theory and practice of his specialty, but in doing his part to help in the solution of social, economic and political problems. The broader his outlook, the greater will be his inclination to assume

his proper share of responsibility in these fields of activity, and the more effective his work.

## XI

WILLIAM FRANCIS MAGIE
Former President of American Physical Society
Professor of Physics and Dean of the Faculty, Princeton University

My remarks on the value of the study of the classical languages will be made from the standpoint of a teacher as well as of a student of physics. I am interested in the question as to what studies best prepare a man for successful work in any one of the physical sciences—the so-called exact sciences of earlier days. Of course the one fundamental and essential subject in the preparation of a physicist is mathematics, first because of the universal applicability of mathematics in the development of physics and secondly because of the unique value of mathematics for training in the deductive processes which form so large a part of any argument by which a physical law or physical theory is established. Next to mathematics for early training I rank the classical languages. The elementary study of physics or chemistry is of no importance in comparison. It is no more necessary or advisable to give in school an elementary course in physics to a boy who is to become a physicist in the future than it is to give in school an elementary course in law to a future lawyer or in anatomy to a future surgeon.

Besides the knowledge of mathematics and training in its use the physicist needs mainly training in the use of the inductive or scientific method of reasoning. This can be obtained in no better way than by the use of the

grammar and dictionary in the interpretation of the meaning of some classical author. There is in the problem offered by each sentence of a classical book just the admixture of known and unknown, just the combination of previous acquisition with the necessity for discriminating choice among possibilities that is encountered in a physical investigation. The student of a settled language is exercising all the time the same method that he applies to a scientific question. Indeed he is engaged in a scientific study. There is no reason why we should restrict the term "science" to the study of external nature. The mode in which men have expressed their thoughts is just as much a subject for scientific inquiry as is the mode in which light traverses a prism or electricity distributes itself on a conductor. And it is generally true that to a young student human thoughts and emotions and language as their vehicle of expression are more interesting than the abstract and wholly unemotional laws of nature.

It may be added that training in the classical languages leads the student to the consideration of his own methods of thought and expression, and promotes accuracy in argument and precision of statement. If this study is carried so far that the student's taste and literary judgment are developed they serve the scientific man still further. Without going so far as to say, as Matthew Arnold seems to say, that truth and falsehood can be perceived by the man of culture without exact and profound study of the evidence, it may be maintained with confidence that even in subjects in which the evidence for a proposition is as precise and clear as it usually is in physics there is still room and large room for the exercise of tact and discrimination

both in the balancing of rival arguments and in the statement of one's own views in such a way as to receive consideration and win acceptance.

## XII

ALBA B. JOHNSON

President of the Baldwin Locomotive Works, Philadelphia

Before proceeding to read, I think it is only fair that I should state that I am not a graduate of any college, but am a graduate of the Central High School of Philadelphia. Therefore whatever views I shall express are those which have been based upon forty years of contact with young men, with study of young men who have been under my supervision, and a careful analysis of the conditions of technical education with reference to success in industrial and other forms of life. Therefore, you will acquit me at the outset, if you please, of approaching the subject with any bias whatever.

When the Government of the United States had been established in place of that of the British Crown, it was perceived that the people of any nation governed by the popular will must have sufficient education to create sound public opinion upon subjects of national importance. The first test of education is the creation of an intelligent citizenship, inspired by love of country, by obedience to its laws, by willingness to serve them whenever and however such service may be required, and by abhorrence of everything detrimental to the public good.

Since then, however, our economic conditions have changed. The resources of the country have been developed upon a vast scale, the field of knowledge has

been extended, the processes of manufacture are complicated and scientific, and transportation has become a profession of the first importance. Work formerly done by hand is now performed by powerful and complex machinery, requiring high standards of intelligence for its design and operation. It has become necessary, therefore, for the state to provide its youth with the highest degree of education to meet these new conditions and to compete with the educational standards of other countries. It is nationally important for the schools to train for specific occupations, by teaching manual trades to those who would be artisans; the arts and principles of design to those who would be artists, chemists, electricians, etc., and stenography, bookkeeping, languages, banking, etc. to those who would engage in commerce. The commercial necessities of our country at home and abroad require that our young people must be educated to conduct the highly organized and complicated business of the country as well or better than our competitors from England, France and Germany. The future prosperity of our country must depend largely upon the development of our foreign trade. Preparation therefor belongs to our schools. Are they ready for the great international test to which they must inevitably be subjected?

For more than one hundred and fifty years our people have been engaged in clearing the forests, developing the mines, building railroads, bridges and highways, constructing factories, mills and industrial establishments, and in cultivating the hills of the East and the prairies of the West. The "sons of Martha" have achieved great tasks, and the "sons of Mary" have been

diffident and overshadowed. We have had little time to give recognition or encouragement to the latter.

More than anything else the world needs those able to think, and by reason of independent thinking able to assume leadership. Business and financial leaders may be evolved from the discipline which is essential to success in business and finance. Political leadership may be evolved from the game of politics. The leadership of mind and spirit is nurtured in the discipline which is found in liberal studies, in knowledge of the facts of history, in communion with the great minds of the past, in the cultivation of the powers of concentration and reasoning which experience has shown is best derived from the study of the classics, by the toil of mathematics and the mastery of philosophy. The highest powers of expression are derived from the study of the English language and from careful analysis of the languages upon which our English tongue is based. While fully realizing the advantages of vocational study, nevertheless it has been the English system of liberal studies which has produced poets like Shakespeare, Milton and Tennyson; writers like Addison, Swift and Johnson; scientists like Newton and Kelvin, and statesmen like Palmerston, Gladstone and Cromer. A system which has produced such men, and numberless others, cannot be totally condemned. More and more is the mental discipline which can be derived only from liberal studies coming to be required as the foundation for the specialized courses necessary for admission to law and medicine, while these studies have been the gate of admission to the ministry and literature.

There is one fact to which I would call attention before closing. Education alone, either technical or lib-

eral, will not elevate the moral standards of mankind. Moral elevation is an attribute of the soul, and is derived from religious teaching and moral discipline. It is a notable fact that the nation which boasted most of its intellectual development, its advancement in the arts and sciences, in its Kultur, when put to the test of war, has discarded every advance gnaranteed by international law, including its own solemn covenants, and has debased itself below the standard of savagery.

Every man of character impresses his qualities upon those about him. Learning, rectitude, nobility, and every other attribute of his character permeate those brought into contact with him. The man at the head of every organized group, whether it be the nation or a business organization, a college or a school, to a great degree impresses his character upon every individual comprised in it. The influence of the individual teacher upon the plastic minds of his pupils is incalculable. As character is the highest product of education, its recreation in others must ever be the primary test of education.

What then are the real tests of education? They are discipline of the mind and spirit; the ability to create character of that exalted kind which unconsciously disseminates refinement and nobility; the development of powers of independent thought, which qualify for leadership and the evolution of that refinement of spirit which comes from communion with the highest things of earth and heaven.

In saying this, I point out the fact that the time has gone by when anyone can hold up the principle that the duty of the state terminates when its people have acquired a mere common school education.

## XIII

FAIRFAX HARRISON

Chairman Committee on National Defence of American Railway Association
President of the Southern Railway, Washington

[Telegram]

Hearty congratulations on the Classical Conference. Sincerely regret duties of public nature prevent my attendance, as I am deeply interested. Hope insistence will be made on necessity of education for leadership in a democracy for which classical studies always have been and always will be the foundation.

## XIV

HENRY W. FARNAM

President of the American Economic Association, 1912
Professor of Political Economy, Yale University

[Read by Professor F. A. Fetter]

In the short space allotted to this paper, it is quite impossible to discuss fundamental principles of education, and the most that can be done is to offer such testimony as the concrete experience of the individual may be able to furnish. In his argument against compulsory Latin President Eliot enumerates three human interests which are of the highest importance, and no one of which requires a knowledge of Latin. These three interests are "concerned with religion, government, and the means of supporting and improving a family" ("The Case Against Compulsory Latin," *Atlantic Monthly*, March, 1917, p. 357). It may at once be conceded that many millions of men have practiced religion, have maintained government and have supported

their families without a knowledge of Latin. But while these three interests are fundamental, there are many others which are eminently desirable for an educated man. One of these is the art of expression, and my argument for Latin will be confined to this one desideratum.

The great distinction between the parent tongues of western Europe and their modern descendants is that they were more fully inflected, the different cases of nouns, adjectives and pronouns, as well as the different moods and tenses of verbs being indicated by changes in the prefixes or suffixes of the root word. Modern languages have, to a greater or less degree, lost these inflections. German has, perhaps, suffered less than most of them; English, more. The result, particularly in English, is a loss of conciseness and of exactitude. Shades of meaning are indicated by circumlocution. The root word itself indicates nothing with regard to its case, if a noun, or with regard to its mood and tense, if a verb. In fact, the same word may often be either a noun or a verb.

In addition to this confusion arising from the loss of inflections, a new confusion has crept in through the adoption of an immense new vocabulary, the origin of which, though very recent, is often obscure. If no new word gained admission to the dictionary until passed upon by a committee of experts, we should probably enrich our popular language, as the scientists have enriched the scientific language, by compounding words out of Greek or Latin fragments. But such cases are rare, and most of our new words are foundlings, dropped on the doorstep, with no pedigree and hardly an identification tag. The consequence is an almost gro-

tesque ambiguity. Thus, a sleeper may mean a person who sleeps, or the vehicle in which he sleeps, or the stick of wood which supports the rail on which the sleeper which carries the sleeper rolls. A smoker may mean a man who smokes, or a car in which he smokes. A typewriter may be a soulless machine or a soulful young woman. The advertisement which appeared in an English paper, "Wanted—A capable girl to mind three children," told, perhaps, more of the truth than the advertiser was conscious of. The headlines of our newspapers furnish daily reminders of the confusion which results when one and the same word may be either a noun or a verb and may be used either in the transitive or intransitive sense.

In an age which cultivates efficiency, and in a science which studies economy, this ambiguity means wasted effort, and the best corrective is the study of languages which have not yet lost their grammar. Incidentally, it is of some value to be saved from wrong uses of Latin phrases and words which have become domiciled in the English language, and I regret that such barbarisms as "this data" have become so common among statisticians and economists that even those whose teeth were, a few years ago, set on edge by them, are now becoming callous. It may be a mere accident, but I certainly have a distinct impression that of the many manuscripts on economic subjects which I have had occasion to read and edit of late years, those written by graduates of colleges which have abandoned the classics are most sorely in need of revision.

In making a plea for the classics, and especially for Latin as a standard of exact expression, I refer only to the language when it is really taught and not when it

is muddled. It would seem superfluous to emphasize this fact, were it not that arguments have of late been set forth with great ability and no little authority which seem to be based upon this confusion. Dr. Flexner, for example, cites as an argument against Latin the fact that in the examinations held by the College Entrance Board in 1915, 76.6 per cent of the candidates failed to make even a mark of 60 in Cicero ("A Modern School," Occasional Papers No. 8, Publications of the General Education Board, p. 6). If the statistics are correct, this argument may prove that Latin is not well taught in our schools, but does not prove that Latin, when well taught, is without value. It is an argument not against the usefulness of Latin when acquired, but against the uselessness of failing to acquire it. The remedy is to give better instruction in Latin, not to condemn it.

Latin should be taught in the very first years in such a way that the pupil becomes thoroughly familiar with the current vocabulary and the inflections.

My own experience dates back so many years that it no longer applies in full measure to modern conditions, and yet I believe that it may serve as a useful illustration. I began my study of the classics in Germany, and I always had the feeling that the years which were devoted to these subjects in an American college added little to the knowledge which I brought with me from across the ocean. I never felt that I gained any real familiarity with Greek, and I never appreciated Latin until, after taking my Bachelor of Arts degree in the United States, I had occasion to study Roman Law in Germany, and to use Latin as a vehicle of thought. I then appreciated, as never before, the wonderful di-

rectness and clearness of the language. The consequence was that when I returned to our country and found that the entrance to an academic career lay through a tutorship and that a tutor was expected to teach, not a subject on which he might have specialized in his graduate work, but only Greek, Latin or mathematics, I elected Latin as the subject in which my incompetence was least pronounced. But, having had occasion to use and value the language in my study of the Roman Law, I was able to take it up with an enthusiasm which I hope concealed from my students my disqualification for the task.

## XV

### Thomas Hastings

Architect
Carrere and Hastings, New York City

The study of the classics has a tendency, more especially with the youth of a people, to instill into their thoughts a courage and keenness in the quest of truth, with a devotion to all that is beautiful. Eighteen years ago, in a Government report under the chairmanship of the distinguished Prime Minister of France, Monsieur Ribot, there was included this striking tribute to the advantages of a classic education:

"L'etude de l'antiquité greque et latine a donné au genie française une mesure, une clarté et un élégance incomparable. C'est par elle que notre philosophie, nos lettres et nos arts ont brillé d'un si vif eclat; c'est par elle que notre influence morale s'est exercée en souveraine dans le monde. L'esprit classique est la culte de la raison claire et libre, la recherche de la beauté harmoni-

euse et simple dans toutes les manifestations de la pensée."

Speaking as an architect, I have a far greater sympathy, both in art and literature, with the Renaissance which aimed to revive the Augustan Age of Rome, than with the more recent so-called Humanistic School which sought to build its foundation on the Golden Age of Athens. The greatest art of the last four hundred years has been founded upon Roman principles, and the recent examples of the so-called Neo Grec have today but few adherents. Architecturally we are still living in the period of the Renaissance, building upon classic traditions, and if we can establish this fact we may find a certain striking analogy in its relation to the more conservative tendency in liberal education.

From prehistoric times until now each successive age has built in one, and only one, style of architecture. Today we select from the past—building in every variety of style. Why should we not be modern, expressing the spirit of the time in a style of its own making?

Style in its growth has always been governed by the universal law of development, one style being evolved from another. This evolution has always kept pace with the progress of the political, religious and economic spirit of each successive age. It has manifested itself unconsciously in the architect's designs, under the imperatives of new practical problems imposed upon him.

As in nature the types and species of life have kept pace with the successive modifications of lands and seas and other physical conditions imposed upon them, so has architectural style in its growth kept pace with the successive modifications of civilization. The laws of the survival of the fittest have shaped the history of archi-

tectural style just as truly as they have the different successive forms of life. Hence, the necessity that we keep and cultivate the spirit and traditions of our near forefathers, and that we respect our historic relations.

Were it necessary we could go back to the time of the mound builders and cave dwellers, and all through the history of architecture trace two parallel lines, one the history of civilization, and the other form and design constantly changing to meet modified conditions. One need only mention the Greek column so beautifully modified by the Romans to meet the new and more varied methods of construction. We could multiply illustrations without limit. The battlements and machicolated cornices of the Romanesque; the thick walls and the small windows placed high above the floor, tell us of an age when every man's house was indeed his castle, his fortress, and his stronghold.

It is interesting to notice how, in other times, an architect was even able to complete a tower or add an arcade or extend a building following the general lines of the original composition without following its style, so that almost every historic building within its own walls tells the story of its long life. How much more interesting alike to the historian and the artist are these results. Until now an artist has always respected the traditions of the generation which preceded him, and, as it were, he was apprenticed by its influence. Whoever builds in a style not in keeping with the spirit of his time is responsible for retarding the normal progress of the art. We must have a language if we would talk. If there be no common language there can be no communication of ideas either architectural or literary. We must hope to find the classic again everywhere assert-

ing itself, in order to renew that consistency of style which has existed in all times until the present generation; then only, as of old, shall we find modernity in every performance of man's ingenuity; in the work of the artist or the artisan, from the smallest and most insignificant jewel or book cover to the noblest monument of human invention or creation; from the most ordinary kitchen utensil to the richest and most costly furniture or decoration that adorns our dwelling.

The architects in the early history of America were distinctly modern and closely related in their work to their contemporaries in Europe. Building upon classic forms they seem not only to have inherited traditions, but to have religiously adhered to them. I believe that it is because of this that the genuine and naive character of their work, which was of its own period, still lives and has a real charm, though ofttimes wanting in technical skill.

We have seen that the life of an epoch must make its impress upon its art and its literature. It is equally true that the art of a people helps to form and model its character. In this way it reacts upon it. If there is beauty in the plans of our cities, and in the buildings which form our public squares and highways, its good influence will make itself felt upon every passer-by. Beauty in our buildings is an open book of involuntary education and refinement, and it uplifts and ennobles human character; it is a song and a sermon without words. It inculcates in a people a true sense of dignity, a sense of reverence and respect for tradition, and it makes an atmosphere in its environment which breeds the proper kind of contentment, that kind of content-

or moral precept, nor indeed any spoken word of man, would obtain which had not been expressed with a true sense of beauty.

To eliminate the classics from your university curriculum would be as great a calamity as to teach architecture suppressing the study of the entablature and the column. To know Greek and Latin is, I believe, as much an essential part of a literary education as a true understanding of the classic orders is the beginning of all architectural schooling. These are the foundations upon which the artists in literature and architecture alike build their superstructure. These fundamental first principles in education cultivate and stimulate the true sense of beauty and refinement while they impress upon the mind of the student an accurate appreciation of those most subtle laws of proportion which though intuitively learned are none the less true and to be relied upon as a part of our education.

It is, I believe, a law of the universe that the forms of life which are fittest to survive are beautiful in form and color. Natural selection is beautifully expressed, ugliness and deformity are synonymous, and so in the economy of life what would survive must be of its own period and beautifully expressed.

A great tide of historic information has constantly flowed through the channel of monuments erected by successive civilizations, each age expressing its own life, and we can almost live in the past through its monuments. The recently discovered buried cities of Assyria and Lydia give us a vivid idea of a civilization lost to history. The pyramids of Cheops and the Temples of Karnak and Luxor tell us more of that ingenuity which we cannot fathom, and the grandeur of the life and

history of the Egyptian people than the scattered and withered documents or fragments of inscriptions that have chanced to survive the crumbling influences of time. The Parthenon and the Erectheum bespeak the intellectual refinement of the Greeks as much as their epic poems or their philosophy. The triumphal arches, the aqueducts, the Pantheon, and the basilicas of Rome tell us more of the great constructive genius of the early republic and the empire of the Caesars than the fragmentary and contradictory annals of wars and political intrigues.

The unsurpassed and inspiring beauty of the Gothic cathedrals which bewilder us, and the cloisters which enchant us, impress on our minds a living picture of the aspirations of mediaeval times—a civilization that must have mingled with its mysticism an intellectual and spiritual grandeur which the so-called Dark Ages of the historian have failed adequately to record; and in America, even amid the all absorbing work of constructing a new government, our people found time to speak to us today in the silent language of their simple colonial architecture of the temperament and character of our forefathers.

Will our monuments of to-day adequately record the splendid achievements of our contemporaneous life—the spirit of modern justice and liberty—the progress of modern science, the genius of modern invention and discovery, the elevated character of our institutions? Will disorder and confusion in our modern architecture express the intelligence of this twentieth century? Would that we might learn a lesson from the past, in art and letters alike, from the stately Latin and graceful Greek languages, with their lesson of order, propor-

tion and harmony, and from the glorious antique literature, so that modern architecture, wherever undertaken, might more worthily tell the story of the dignity of this great epoch and be more expressive of this contemporaneous life.

## XVI

EDWARD P. MITCHELL
Editor of *The Sun*, New York City

Some time ago a railroad president sent me as a curiosity this beautiful letter from a young man applying for the job of stenographer:

"Experienced in charting statistics, possessed of the taciturnity and discretion necessary to association with executives, broadly read on matters germane to railroad operation, a student of unity and clearness in composition, with an acquisition of that uncommon knowledge of English—including the study of word differentiation—essential to the highest grade of stenographic work—an omnivorous though active reader with a vocabulary large enough to meet the requirements of both your vocative and avocative correspondence, I shall be glad to give to any designated subordinate an oral expatiation of my fitness and experience."

Apparently, indeed, the candidate's vocabulary was so large that he would have been obliged to have it checked when travelling over the railroad president's railroad. I am not displaying this genuine letter, however, in order to invite smiles at its excessive Latinity and elaborate rotundity of phrase; but merely to declare, from the point of view of one quite dispassionate

observer for forty-odd years of the indications afforded by style, that if the railroad man had asked an opinion I should have advised him to give the young man a trial. More than that, I should have urged him to thank both the god of Transportation and the god of Vocative and Avocative Literature that his choice of a secretary was not confined to persons introducing themselves in fashion like this:

"Take it from me, I'm the guy that's wise to what you want. This is straight goods. There ain't a leak in the lid of my nut. The lingo's all there. I'm fifty-fifty William W. Shakespeare and Old Dictionary Johnson. Try it on with your fly word twirlers and if any hot one gets by the plate then Me for the bench."

At a guess I should say that more than half of the really distinguished writers I have watched during the period of observation could have passed Horace Greeley's profane test of fitness for newspaper work; that is, they were without Latin and Greek at first hand. But further I should say that in the great majority of these cases the classical influence upon habits and methods of expression, acting secondarily through the slower process of self development, through natural selection, through conscious or unconscious imitation of admired models, was not less potent and perhaps superficially a trifle more apparent than when it had been exerted directly through the schools. In this as in every other such field it is a mistake to reckon the plus or the minus as affecting only individuals certified with diplomas. The preservation of the standards, not the census of the classically educated, is what signifies.

To the multitude of good reasons accumulating here today I suggest the addition of this:

The most serious practical evil to result from the elimination of the classics will fall upon the English language itself. There is no livelier perception than in the newspaper offices of the disintegration produced by the absurd circumstance that only so many millimeters of big type can be made to go into so many millimeters width of column. Is it not ridiculous that under the pressure of the popular demand for spectacular typography the choice of words for headlines—and today these are not only the most conspicuous thing in any newspaper but more influential than a hundred chairs of rhetoric in shaping the future conventions of English speech—is coming to be determined by size and not by signification?

Put not too much blame on the headliner. To understand his craftsmanship, try to construct a few headlines in millimeter English. Try to build a phrase limited by linear measurement out of words quarried, for instance, from the Latinist letter which was read just now. Try it then from the blend of short Anglo-Saxon and street slang which I took the liberty to imagine. You will see why the fraudulent misuse of many a lean, convenient verb, noun or adjective is being impressed daily upon the gray matter of the coming generation. You will see why the straitjacket of physical space is distorting not only philology but syntax, and forging a syncopated system of word relations as crude and false as that of the Chinook jargon. And I think you will understand why a newspaper man, bred to the honest old standards, like my friend Dr. Miller of the *Times*, is impelled to come to Princeton to do his bit in upholding the movement which keeps

open the sole reasonable hope of checking this degringolade of accuracy and dignity in English expression.

In its worst aspects headline English is the yellow peril of the language. If unchecked, the havoc of anarchy is irreparable that it can wreak upon that marvellous composite, that adequate instrument of any sort of thought, that heritage from two hundred generations of our thinking ancestors, that palimpsest not only of Latin and Greek culture but also of the earlier cultures handed down to us through the Greco-Roman medium from away back as far as Nippur.

Not merely, then, because of the disciplinary loss, nor yet mainly on account of the informative loss involved in the discard of the classics, but principally because the instant there disappears from the education of the educated the means of knowing, for example, that a telephone is a telephone for the reason that through it we speak afar, and not for the reason that some advertiser deemed this a taking name for the particular utensil, to that extent the racial memory begins to decay, the racial imagination begotten of memory is weakened, the sense of precise meanings begins to lose its edge, and the English language ceases to be a vital thing and becomes a mere code of arbitrary signals wigwagged from mouth to ear.

Were I the emergency autocrat of this language I should proclaim in drastic regulations and enforce by severe penalties the American duty of adherence to the old habits of speech, the old scrupulous respect for the finer shades of meaning, the old rigid observance of the morality of word relations; and this, I believe, can be done only by maintaining the classical culture at high potency. For the "guy" or "gink" who is "wise to what

we want," in his dismal attempt to put "punch" into the vernacular is punching the intelligence out of it; and he promises, unless deterred, to leave the precious fabric as full of holes as a colander and as void of working efficiency as a last month's commutation ticket.

## XVII

CHARLES R. MILLER

Editor of *The New York Times*, New York City

A man of my calling, comfortably assiduous and having length of years, puts into print the equivalent of 100 octavo volumes of 350 pages each. Who in the realm of pure literature writes so much? If in Dante's thought Virgil, with the Eclogues, the Georgics and the Aeneid, was the fount of a broad river of speech, then a veritable Amazon of utterance flows forth from the pen that, year after year, contributes a daily column to the press. It is not literature; it would miss the mark if it were, but its object is best attained if it have the form and quality of literature. To the multitude it is the abiding and most familiar example in the use of language in other than spoken form. It is quite unnecessary to argue that a stream from which so many take their fill should be pure at the source. Standards may be kept inviolate by the pen of genius writing for the cloistered few; current speech takes its form very much from the daily newspaper.

It is a responsibility not lightly borne by men of conscientious habit. Through what discipline comes fitness to bear it worthily? We must not with too clamorous insistence press the case for Latin and Greek beyond safe limits. Too many men write good English who

never read a line of either tongue. Much reading of English gives command of an encompassing vocabulary, good taste and the instinctive sense of language may confer the power to employ it with elegance and propriety. However acquired there must be an instructed discrimination in the use of the elements of the language, a sense always clear and sure of the just word. That discriminating sense comes, if it be unfailing can come only, through knowledge of the origin, history and composition of words. It is my observation and judgment that the surest way, certainly the shortest way to the acquisition of this sense of values leads through the texts of the Greek and Latin authors and the less alluring but indispensable pages of the grammarians. That conviction rests upon a good many years of observation. I should give it much emphasis if I were called upon to advise in this matter young men looking forward to a newspaper career.

This is very familiar ground and I forbear. I mean merely that a newspaper reporter, correspondent or editorial writer who does not know, citing only examples that have recently come under my eye, that expurgate does not mean expunge, that egregious is only by custom and not by etymology an epithet of reproach, and that a decimated regiment may still be a force to be reckoned with, has much to learn about the English language. Lord Bryce, in accounting for the newborn interest in this question displayed by "certain sections of the population which were not wont to interest themselves in educational matters," says that "there has been created in the popular mind an association, now deeply rooted, between the knowledge of applied science and material prosperity." This is economic determinism

applied to education. To the dogs with the higher things of the spirit; youth shall train in branches that will provide the biggest store of bread and butter for the body. For any young man who would become a newspaper writer that is a false, deluding doctrine. It is precisely the good old fashioned classical schooling that gives him command of the higher places, the higher rewards. If he would climb to the high places, let him build the stairway during his college years.

I am void of all fear about contradiction when I say that a newspaper man, and particularly an editorial writer, who has missed making the acquaintance of the gods and mortal speaking men from whom our heritage of civilization has descended must fail to do full justice to his talents, however great they may be. In modern times every unexplored river, every mountain unclimbed, has been a challenge to the daring spirit of man, until the secret of all sources has been laid bare, all summits topped, save the very few that nature reserves for the glory of heroic spirits in later generations. If we strive so unconscionably in these sterile adventures, shall we be incurious about that Roman fountainhead of our laws, our political institutions and a great part of our language, shall we disdain to climb where through the ages our fathers have climbed, to that Athenian summit whence the light of civilization burst upon the world, where the noblest in art, in poetry, in letters had its birth? For us there is no other source, no other mountain top. Beyond Greece and Rome, save in religion, we trace no line of descent. The Oriental monarchies blazed up and were extinguished. They left us no heritage. Our mother lands are Greece and Rome. There men won deathless fame in works that time has

never conquered. Shall we let them die? Shall we undo the Renaissance, and of the coeval printer's art, seemingly born to transmit for our advantage and enjoyment the treasures of Greece and Rome, make a sumpter mule burdened only with commodities appraisable in cash?

I think I do not wander from the point, the practical point. Without understanding of the ancient world, our ancient world, there can be no sound understanding of the modern world and its affairs. It is highly desirable that a newspaper man should try to understand the world about him. I know that his effort will be less toilsome, its reward richer and more certain, if the light kindled by classical knowledge burns within his mind. To this mastery and understanding a proficiency in science, skill in the mysteries of the external world, no matter in what high degree held, serve no purpose of guidance. What man is doing, singly or associatively, that is the newspaper's province. And for one who has to take thought about the behavior of man, and give expression to it, no branch of knowledge is alien, none superfluous. Culture, even if for the pure joy of culture, is of high and constant service. It freshens, stimulates, uplifts, vivifies.

"All the world is sweeter, if the Athenian violet quicken;
All the world is brighter, if the Athenian sun return."

## XVIII

### Henry Cabot Lodge

United States Senator from Massachusetts

For more than five hundred years scholars and men of education have been discussing the poetry, the drama, the philosophy, the literature of Greece and Rome which we are wont to include in the word "classics." When anyone therefore attempts to give utterance to his thoughts upon that vast subject the line of Terence, "Nullum est jam dictum, quod non dictum sit prius," stares him in the face with all the relentless warning of Dante's inscription over the gates of Hell. We can only console ourselves with the witty comment of Aelius Donatus, which comes to us oddly enough through Saint Jerome,

"Pereant qui ante nos nostra dixerunt,"

and go forward with our repetitions and reiterations of what wiser and better men have said before. There is only one difference to be noted between us and our predecessors and that is in the present mode of treatment. Until within fifty years, broadly speaking, the acceptance of the classics as the foundation and essential condition of the higher education was unquestioned and the note of all discussion was that of praise and admiration. Now the position of those who uphold classical education is defensive; the friends of the classics are contending for the very existence of the learning which they love. There has come a vast change in the attitude toward the "humanities" of those who guide education. Is this change and the consequent assault

upon the classics justified? Is it not being carried to a most injurious extreme?

We cannot answer these questions without a glance at the past, without recalling for a moment the commonplaces of modern history, because modern history begins with the revival of learning and the revival of learning was the resurrection of the literature and the civilization of Greece and Rome. From the days of the Italian humanists when the discovery of a Greek or Latin manuscript, a palimpsest perhaps hidden in some remote convent, was equal almost to a patent of nobility, for some five hundred years the classics were not only regarded as the symbol and test of the highest education but as the highest education itself. Some few classical authors were familiar to Europe long before the age of Petrarch, but the great discoveries of classical literature were coincident with what is known as the Renaissance. It matters not whether the resurrection of this great and long buried literature was the cause of the Renaissance, or was a powerful influence or was merely a manifestation, a product of the time. In the minds of men the revival of learning—that is, of the classics—was indissolubly associated with the rebirth of intellectual freedom, with the breaking of the fetters of the age of faith, with the liberation of the human mind, with the dispersion of the dark clouds which had obscured the vision of men and which had made this world for the mass of the people a foul and cruel place, reeking with filth and disease and steeped in ignorance, on the theory that only in this manner could eternal tortures be avoided and eternal joys in the next world be secured. When Fox founded Corpus Christi College at Oxford early in the sixteenth cen-

tury he established two chairs for Greek and Latin "to extirpate barbarism." Even so men in those days looked upon the two great languages as bringing them from darkness to light, from barbarism to civilization. It is not to be wondered at therefore that men felt a profound gratitude to the studies to which they attributed the new birth of intellectual freedom or that they made those studies the touchstone of the highest education, the badge of scholarship without which, even if the acquaintance was only nominal, no one could assert that he was educated either liberally or as a gentleman. This natural gratitude with its profound and lasting effect upon the minds of men was very far from being purely sentimental. In the literature of Greece and Rome, thus disclosed anew to the world, was preserved the noblest poetry, lyric, epic and dramatic, which the imagination of man had brought forth—unrivalled then, never surpassed since. In the surviving ruins of temples and palaces, in the statues taken from the earth, there met the eyes of the eager searchers an art and an architecture of extraordinary perfection both in proportion and in form which then regained possession of the world and which has never ceased to influence profoundly all that the architect and the artist have since produced for the instruction, the delight or the use of their fellow men from that day to this. As the manuscripts gradually came forth into the light there was disclosed the history of antiquity from Herodotus to Tacitus and models were thus given to the world of what history and biography might be. Philosophy and metaphysics, culminating in Plato and Aristotle and in the discourses of Socrates, put at the service of mankind the speculations of the most remarkable minds the

world has ever known, ranging over every field of human thought and affecting and advancing knowledge and civilization with a force which must always be reckoned with and which lies at the very roots of all that has been since accomplished. There too, in this literature of the past, were uncovered the foundations of the very sciences which would now consign the classics to oblivion. In Euclid were found the system and problems of geometry; the science of numbers and arithmetic had engaged the acute Greek intelligence; Lucretius embodied the atomic theory of the Epicureans in one of the world's great poems, and the essays, orations and letters of Cicero gave style to the prose of modern Europe. In the appliances which improve the conditions of daily existence the men of the Renaissance found ample lessons in the work of the Roman engineers which had covered Europe with roads and bridges; in systems of drainage as old as Babylon, a marvellous contrast to the filth of the mediaeval cities which used their streets as open sewers and bred disease and plagues and the black death among the people. They contemplated at last with considerate eyes the ruins of the baths and gymnasiums and slowly learned that personal cleanliness promoted health and comfort and that dirt was not really essential to sanctity.

So it came to pass that Greek and Latin, with mathematics as a companion, took possession of education and held it well down into the second half of the nineteenth century. During this uncontested reign came not only such events as the discovery of America and the Reformation but a vast development of art and literature, the great modern literature of the world, sculpture inspired by Greece but touched with the imagination of Christi-

anity, and such frescoes and paintings as the world had never seen before. Nor did the devotion to classical scholarship narrow the field of intellectual activity. Invention was at work and the bounds of knowledge were widened beyond all that men had ever imagined to be possible. Science, which in certain lower forms has of late grown so hostile to the classics, could hardly be said to have been impeded or retarded by their supremacy during a period which began with Copernicus and Galileo, which included Bacon and Newton and closed with Charles Darwin and Pasteur, to take at random only a few of the greatest among many great names. The classical system supplemented by mathematics was known as a liberal education in contradistinction to an education devoid of classical studies or confined to special and technical training. The phrase was just, because whatever the defects of the classical education it may truly be said that it has always instilled into all those subjected to it a respect for knowledge and learning in any form and in any direction, possessing a really liberalizing influence which seems at times sadly lacking in purely scientific or technical training.

Despite the fact, however, that the classical education was essentially liberal in its attitude toward all education and all learning, the opposition to it which began, roughly speaking, some fifty years ago was directed against its exclusiveness, and sought to overthrow its monopoly of studies which rested on the doctrine that whatever else a student might acquire he could never be deemed a thoroughly educated man unless he had at least passed through a certain course of classics. The movement against this exclusiveness was based no doubt upon sound reasons. It was entirely successful and the

doors of our universities were opened to those who offered scientific courses or modern languages in place of one at least of the classical requirements. But the movement has not stopped at this point. It is now pressing on toward the practical exclusion of the classics, toward a complete reversal of the old system, and there are many preparatory schools supposed to fit boys for the higher education where Greek at least is substantially abandoned. In the universities themselves the tendency is more and more in the direction of giving up the classics and making the entire essential curriculum consist of scientific and economic studies united in some measure with modern languages.

This comparatively recent and very extreme hostility to the classics, to the studies which lifted modern civilization out of the darkness that followed the fall of the Roman Empire and which for nearly five hundred years was the foundation and the test of the higher education, seems to deserve examination. Before the classics are relegated to a few scholars, philologists and lovers of literature, let us inquire whether it is wise thus to sentence them to banishment. In making this inquiry it is well to begin with the fundamental question as to what education is in the last analysis.

The first and dominant object of all education is to teach the child, the boy or girl, to use his or her mind; that is, in other words, to teach them so to control their minds that they can apply them to any subject of study and especially to a subject which it is a duty and not a pleasure to master and understand. When this power to use and control the mind is once thoroughly attained the boy or girl can then learn anything which his or her mind is capable of receiving and acquiring. Very few

minds can master every branch of learning. The man who can learn languages may be wholly unable to go beyond the rudiments of mathematics. Some minds again are much more powerful than others, just as some bodies are more muscular than others, and are able to go further in any direction than the average intelligence. We all have our mental limitations. But it is none the less profoundly true that those who have been taught to use and control their minds can apply them to any subject and go as far as their individual limitations permit. So far all, I believe, who have reflected upon the subject will agree. I think we may also agree that as any form of exercise will develop some muscles and some forms will develop all, so any kind of study properly pursued, whether it is arithmetic or Sanscrit roots, will develop the muscles of the mind and give it the power of continuous application by a mere exercise of the will. It is equally true, however, that the use of dumb bells, on the one hand, and walking, on the other, will not develop the same set of muscles, although both contribute generally to health and strength. In attaining to the command of the mind, to the power of controlling its application by will, the same rule holds good, but there is a wide choice of method, because while any study can be used to develop strength and vigor, some will narrow and others broaden; some will cease to have any value beyond the simple production of strength, while others equally efficient in this direction will lead to results which bring lifelong uses and pleasures.

It is at this point that the division of opinion begins. The old and long established curriculum which was confined to the classics and to mathematics was quite as efficient as any other system in teaching a boy, if the

teaching was good, to apply and control his mind. This also might be said in its behalf, that when a boy was capable of learning and also of retaining anything which he had been taught, the two capabilities being by no means inseparable, he went from school to college or into the world really knowing something about one or two subjects, instead of knowing little or nothing of a great many subjects upon which his time had been dispersed, a result which seems to be preferred at the present day by educational experts no doubt far wiser than those of the past. If I may be permitted, let me take an illustration from my own experience. There was a certain boy, whom I knew very intimately, brought up as we all were fifty years since under the old curriculum. When he went to college he knew thoroughly the Greek and Latin grammars in which he had been painfully and reluctantly drilled. He knew both the syntax and prosody and was fully possessed of the idea that a false quantity in Latin was little short of a crime; his feelings on this point were like those of Browning's Spanish monk as to the

> "great text in Galatians,
> Once you trip on it, entails
> Twenty-nine distinct damnations,
> One sure, if another fails."

He could write Latin prose. It was far from classical, but it was grammatical and comprehensible. He could read Latin and Greek at sight; that is, Greek no more difficult that the Crito and Gorgias which he studied in his sophomore year. He was able to learn enough arithmetic, algebra, plane and solid geometry and trigonometry to pass all his examinations with rather high per-

centages, but he was wholly unable to retain them and they fled after the examinations and left "not a rack behind." In all that concerned mathematics his limitations were hopeless. In the middle of his college course, tempted by the attractions and greater ease of the elective system, he deserted his Latin and Greek, which he has regretted all his life since, for although he has retained his Latin so that he can read it with pleasure, his Greek, neglected, has become laborious and would require to regain it in proper measure time which a much occupied life could not spare. Since those far off days the boy has had sons and grandsons who in turn have been blessed by all the most modern advantages and latest improvements in education. He has observed them closely and he has failed to see that they were better taught than he was or knew more or could use their minds better than he could at the same age. Of course after school ended his sons came to know far more than their father because they had finer intelligences. But the boy of whom I speak has remained so unregenerate that he is trying even now to make sure that his grandsons are taught Greek at school, so that in the days he will not see they may at least know what resulted from the wrath of Achilles and why people speak of bending the bow of Odysseus. I can hear the wise educator of today, as I indulge in this reminiscence, exclaim at such an education as I have described and rejoice that it has been done away with. Perhaps he is right. I should not think of setting my opinion against his. Yet I cannot but feel some doubt of his absolute correctness creep over me when I consider the events of the last three years, as to the perfection of our most modern civilization which is so largely the work of our most

advanced methods of education. I have become very sceptical as to the wisdom which would cast the literature of Greece and Rome upon the dust heaps, when I have contemplated the performances of the most diversely and most thoroughly educated people in the world, from whom we have so largely borrowed in the way of education; when I have seen that people develop to the highest point the science of destroying human lives, as perhaps was to have been expected; when I have seen them produce an organized barbarism far surpassing in its savage efficiency any that has ever afflicted the world; when I have witnessed the deeds wrought by the products of the most modern and improved methods of education which surpass in wanton destruction, in equally wanton cruelty, in sheer naked horror, anything which history can show; when I have beheld all this I have seriously doubted whether the most modern education has been quite such a complete success as its advocates assert. In the centuries of classical education which followed the Renaissance and the revival of learning there were wars in abundance—generally needless, sometimes desolating, often cruel, always destructive and sad. But in all that long period there was never anything so wholly hideous as that which we have seen in this present war. "Ruin has taught me thus to ruminate" and I think that it is easy to show that to detect a connection beween methods of education and the events of the present worldwide war is not wholly fanciful. Meantime let me ask pardon for the long digression to which my little illustration has given rise and let us return to the main question.

Admitting that any form of learning can if properly administered teach the use and the control of the mind;

admitting that there is a wide choice in the forms to be adopted for this purpose and that it is well that the classical exclusiveness or monopoly has been ended, let us consider if it is not also well to resist the attempt now on foot to drive the classics from the preparatory schools and treat them with a cold and almost deadly indifference in the universities.

The reasons given for this treatment of the classics are various in form but eventually the same in substance. They may all practically be reduced to the objection made to me very lately, when I was urging that the classics ought to be taught in every school which prepares for the higher education, to the effect that they were of no use in after life. I have often quoted in this connection Lowell's definition of a university, as a place where nothing useful was taught, and beneath the wit lies a sound philosophy demonstrating that there must be places where learning, scholarship and knowledge can be pursued and acquired for their own sake, because if their fate is to be decided simply by the money test they will soon wither away, and thought and civilization and the higher life of the intellect will die with them. I have used the words "money test," and when people say the classics are of no use they mean very frequently, if not very generally, that they will not help a man to make money. If this was applied to the pursuits which have no purpose except to enable a man to earn his own living, a high and primary duty, it would be certainly sound; but the higher education, which multitudes desire and many in varying degrees attain, goes beyond the manual occupations and aims at least to develop the purely intellectual faculties. Here the mere money test seems unsatisfactory; in fact many persons regard it as

a very sordid test indeed. The apostles and teachers of religion, the moralists, the poets, the dramatists, the artists, the philosophers, the students of science and of nature, the men whose thought has moved the world and led humanity in its groping, stumbling march across the centuries, have rarely been money seekers or money getters. Without such men and such minds it is highly probable that we should still be running naked in the woods and the opportunities even for making money would be very small. Tried by the money test alone everything but reading, writing and arithmetic would properly be excluded and therefore I think we may discard money making as a wholly worthless test for the exclusion of the classics or of any other study which should engage the attention of those who seek in any degree the higher education.

The larger objection that the classics are neither necessary nor useful in after life to those who have studied them in school or college is so vague that it can only be dealt with in general terms. As to the question of the necessity I can only reply in the words of the greatest of geniuses who made a little learning go a very long way and gathered a small fortune at the same time. When Regan says "What need one?" Lear replies:

> "O! Reason not the need; our basest beggars
> Are in the poorest thing superfluous:
> Allow not nature more than nature needs,
> Man's life is cheap as beast's."

When we come to the question of utility the field is a wide one and the tests must be comparative and cannot be absolute, but a little inquiry and consideration are not out of place before we accept the dogma of the

votaries of applied science and of the mechanic arts as well as of so-called practical men. Take the learned professions. Surely it is well that the clergy should have some knowledge of the language of the New Testament and of that other in which a large part of the Christian world repeat their prayers and read their Bibles. It cannot be wholly without value to physicians and surgeons to be acquainted with the language and the literature of the race among whom their noble and beneficent profession finds its birthplace or of the language in which they still write their prescriptions, or of both these languages from which they bring forth for their new drugs and new diseases names which not infrequently they mispronounce. Lawyers no doubt can make a living, and often a very good one, knowing only the statutes and the more obvious rules of pleading and practice. But it can hardly be questioned that if they go beyond this limited region a familiarity with the language which enshrines the maxims they quote, and in which is written that great system of jurisprudence bequeathed to us by the Romans and still followed in most countries of Western civilization, is not only useful but desirable. If we turn to the higher sciences we find a like condition. The astronomer cannot explore the heavens without seeing the beautiful mythology of Greece forever written in the stars. The Greek alphabet figures in his catalogues and calculations and some of his greatest forerunners wrote in Latin. The naturalists, the botanists, the geologists, the biologists, not only owe their very names to the classics which some of them despise, but it would not come amiss if they knew, as no doubt many of them do, something of the languages from which they take their nomenclatures and

of the literatures where appear the first guesses at scientific truths and the first and often very brilliant speculations as to the secrets of the universe. In philology, anthropology and archaeology a knowledge of Latin and Greek is of course essential. As to literature it is needless to argue. A literary man should know something of literature, and literature includes the writings of Greece and Rome. In all these instances which I have cited it is difficult to find justification for asserting that the study of the classics is a waste of time because they are useless in after life.

It will, I know, be objected that I have mentioned only learned professions, the higher sciences and literature and have omitted that supremely important person whom certain people desire most especially to protect against the ravages of the time wasting classics—"the average man." I am as far as possible from forgetting him. Lincoln told John Hay one morning how he had dreamed the night before that he entered a crowded hall to make a speech. As he passed down the aisle he heard someone say "What a common looking man," and in his dream he turned to the man who had spoken and said, "My friend, God loves common looking men. That's why He makes so many of them." The "average man" is the central figure in our problem. Repeatedly have I been told that there was no use in teaching the classics to boys in school or college because the "average men" never used them or recurred to them in after life. One feels inclined to say "All the worse for the 'average man'" and to feel sorry for his loss of so much that is elevating and delightful. But admitting the truth of the objection, how much real force is there in it when one applies the comparative test? How large

a part do mathematics and science in various forms play in the daily life and current interests of the "average man"? How many "average men" amuse their leisure by solving algebraic problems, or by trying to conceive the fourth dimension; how many can explain to you—I take an obvious illustration—the Mendelian theory of the dominant and recessive qualities, or the Linnaean system, or tell you of the movements and appearances of the fauna of Europe during the glacial periods and intervals, or even name to you all the great constellations of stars which look down upon them nightly in silent splendor? My occupations have brought me into contact with very many average men and also with men above and below the average, and far more have referred to the history and literature of Greece and Rome than to any of the well known scientific subjects to which I have at random alluded. The fact is that not to know who Mendel was or what the fossils show as to animal life is not necessarily esteemed a mark of ignorance, but never to have heard of Socrates, or Pericles, of Hannibal or Caesar or Cicero, is held to indicate a very defective education to say the least. And yet no one would think of arguing that boys should not be made acquainted with the simpler forms of mathematics and geometry because in after years the "average man" as a rule finds little use and less pleasure from them in daily life.

While it is true that the strongest and most intolerant hostility to the classics comes in the name of science, sometimes assumed without warrant by the persons who employ it, there is another movement against the languages and literature of Greece and Rome conducted by those who urge that they be displaced and replaced

by modern languages which are either their children or their debtors. No one, I think, can feel more keenly than I the importance of modern languages. The man who can read, still more the man who can speak one or more languages other than his own, doubles, trebles, multiplies almost indefinitely his capacity, his usefulness, his efficiency and his enjoyments. I am, as I have said, an unregenerate person and I am glad that I had a classical education, but I have always regretted that I was not taught Latin and Greek by ear first, taught to speak them in the way all languages, spoken or unspoken, modern or ancient, should be taught. No one will go further than I in advocating the study of modern languages, but I am utterly unable to see why it should be considered a prerequisite to their study to displace the classics. They are complementary, not opposed, and in the higher education certainly the classics and the modern languages ought to go hand in hand. It was said that Von Moltke was able to keep silent in six languages, a marvellous feat even in one. But the power to speak after a fashion two or three languages is as common as Von Moltke's many tongued silence is rare and is not incompatible with ignorance or illiteracy. There are also many persons like Thackeray's couriers who spoke, every one of them, several languages "indifferently ill." It is a pecuniarily profitable accomplishment in such cases and usually leads to success as a courier, a concierge, a hotelkeeper, and the like, all excellent occupations, but not concerned with the higher education. It is quite certain that a man may speak one or more modern languages very well and know and enjoy their literatures without having studied the classics, but that is no argument against possessing also a

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of the literatures where appear the first guesses at scientific truths and the first and often very brilliant speculations as to the secrets of the universe. In philology, anthropology and archaeology a knowledge of Latin and Greek is of course essential. As to literature it is needless to argue. A literary man should know something of literature, and literature includes the writings of Greece and Rome. In all these instances which I have cited it is difficult to find justification for asserting that the study of the classics is a waste of time because they are useless in after life.

It will, I know, be objected that I have mentioned only learned professions, the higher sciences and literature and have omitted that supremely important person whom certain people desire most especially to protect against the ravages of the time wasting classics—"the average man." I am as far as possible from forgetting him. Lincoln told John Hay one morning how he had dreamed the night before that he entered a crowded hall to make a speech. As he passed down the aisle he heard someone say "What a common looking man," and in his dream he turned to the man who had spoken and said, "My friend, God loves common looking men. That's why He makes so many of them." The "average man" is the central figure in our problem. Repeatedly have I been told that there was no use in teaching the classics to boys in school or college because the "average men" never used them or recurred to them in after life. One feels inclined to say "All the worse for the 'average man'" and to feel sorry for his loss of so much that is elevating and delightful. But admitting the truth of the objection, how much real force is there in it when one applies the comparative test? How large

a part do mathematics and science in various forms play in the daily life and current interests of the "average man"? How many "average men" amuse their leisure by solving algebraic problems, or by trying to conceive the fourth dimension; how many can explain to you—I take an obvious illustration—the Mendelian theory of the dominant and recessive qualities, or the Linnaean system, or tell you of the movements and appearances of the fauna of Europe during the glacial periods and intervals, or even name to you all the great constellations of stars which look down upon them nightly in silent splendor? My occupations have brought me into contact with very many average men and also with men above and below the average, and far more have referred to the history and literature of Greece and Rome than to any of the well known scientific subjects to which I have at random alluded. The fact is that not to know who Mendel was or what the fossils show as to animal life is not necessarily esteemed a mark of ignorance, but never to have heard of Socrates, or Pericles, of Hannibal or Caesar or Cicero, is held to indicate a very defective education to say the least. And yet no one would think of arguing that boys should not be made acquainted with the simpler forms of mathematics and geometry because in after years the "average man" as a rule finds little use and less pleasure from them in daily life.

While it is true that the strongest and most intolerant hostility to the classics comes in the name of science, sometimes assumed without warrant by the persons who employ it, there is another movement against the languages and literature of Greece and Rome conducted by those who urge that they be displaced and replaced

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of the literatures where appear the first guesses at scientific truths and the first and often very brilliant speculations as to the secrets of the universe. In philology, anthropology and archaeology a knowledge of Latin and Greek is of course essential. As to literature it is needless to argue. A literary man should know something of literature, and literature includes the writings of Greece and Rome. In all these instances which I have cited it is difficult to find justification for asserting that the study of the classics is a waste of time because they are useless in after life.

It will, I know, be objected that I have mentioned only learned professions, the higher sciences and literature and have omitted that supremely important person whom certain people desire most especially to protect against the ravages of the time wasting classics—"the average man." I am as far as possible from forgetting him. Lincoln told John Hay one morning how he had dreamed the night before that he entered a crowded hall to make a speech. As he passed down the aisle he heard someone say "What a common looking man," and in his dream he turned to the man who had spoken and said, "My friend, God loves common looking men. That's why He makes so many of them." The "average man" is the central figure in our problem. Repeatedly have I been told that there was no use in teaching the classics to boys in school or college because the "average men" never used them or recurred to them in after life. One feels inclined to say "All the worse for the 'average man'" and to feel sorry for his loss of so much that is elevating and delightful. But admitting the truth of the objection, how much real force is there in it when one applies the comparative test? How large

a part do mathematics and science in various forms play in the daily life and current interests of the "average man"? How many "average men" amuse their leisure by solving algebraic problems, or by trying to conceive the fourth dimension; how many can explain to you—I take an obvious illustration—the Mendelian theory of the dominant and recessive qualities, or the Linnaean system, or tell you of the movements and appearances of the fauna of Europe during the glacial periods and intervals, or even name to you all the great constellations of stars which look down upon them nightly in silent splendor? My occupations have brought me into contact with very many average men and also with men above and below the average, and far more have referred to the history and literature of Greece and Rome than to any of the well known scientific subjects to which I have at random alluded. The fact is that not to know who Mendel was or what the fossils show as to animal life is not necessarily esteemed a mark of ignorance, but never to have heard of Socrates, or Pericles, of Hannibal or Caesar or Cicero, is held to indicate a very defective education to say the least. And yet no one would think of arguing that boys should not be made acquainted with the simpler forms of mathematics and geometry because in after years the "average man" as a rule finds little use and less pleasure from them in daily life.

While it is true that the strongest and most intolerant hostility to the classics comes in the name of science, sometimes assumed without warrant by the persons who employ it, there is another movement against the languages and literature of Greece and Rome conducted by those who urge that they be displaced and replaced

by modern languages which are either their children or their debtors. No one, I think, can feel more keenly than I the importance of modern languages. The man who can read, still more the man who can speak one or more languages other than his own, doubles, trebles, multiplies almost indefinitely his capacity, his usefulness, his efficiency and his enjoyments. I am, as I have said, an unregenerate person and I am glad that I had a classical education, but I have always regretted that I was not taught Latin and Greek by ear first, taught to speak them in the way all languages, spoken or unspoken, modern or ancient, should be taught. No one will go further than I in advocating the study of modern languages, but I am utterly unable to see why it should be considered a prerequisite to their study to displace the classics. They are complementary, not opposed, and in the higher education certainly the classics and the modern languages ought to go hand in hand. It was said that Von Moltke was able to keep silent in six languages, a marvellous feat even in one. But the power to speak after a fashion two or three languages is as common as Von Moltke's many tongued silence is rare and is not incompatible with iguorance or illiteracy. There are also many persons like Thackeray's couriers who spoke, every one of them, several languages "indifferently ill." It is a pecuniarily profitable accomplishment in such cases and usually leads to success as a courier, a concierge, a hotelkeeper, and the like, all excellent occupations, but not concerned with the higher education. It is quite certain that a man may speak one or more modern languages very well and know and enjoy their literatures without having studied the classics, but that is no argument against possessing also a

knowledge of Greek and Latin. Such knowledge cannot but help any man in the modern languages of Europe, for they have all borrowed or have sprung from Latin and Greek. A man may easily speak a modern language other than his own almost faultlessly, but unless he has some acquaintance with Greek and Latin he can never hope for real scholarship in the spoken tongue which he has acquired or for a thorough comprehension of it. The study and acquisition of modern languages instead of being a reason for the expulsion of the classics from our schools and universities are in reality the strongest argument in favor of their retention. The teaching of the one should always imply instruction in the other.

It is also urged sometimes that it is a waste of time to spend it upon the classics because translations serve every purpose. The great authority of Emerson is cited always in support of this contention and there is no doubt that he gave high if undue value to the translation. I am a lover of Emerson and there are very few who have written either prose or poetry who have meant more to me than he. But in that marvellous and splendid intellect the critical faculty was not the strongest and there seem to be blind spots in the intellectual vision as there are in the eye. Emerson for instance spoke of Poe to Mr. Howells as "that jingle-man." One may like or dislike Poe, admire him or contemn him, but his place in the long annals of English poetry cannot be denied nor can his extraordinary mastery of metrics and of rhyme, of melody and cadence and rhythm be omitted from the history or from the glories of English verse. To call him a "jingle-man" simply shows that Emerson was in those respects what the musicians call

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tone deaf. In a less degree the same may be said of his opinion of translations. A man far inferior to Emerson in all ways, but a highly trained and more discriminating critic, takes a very different view. Boileau said: "Do you know why the ancients have so few admirers? It is because at least three quarters of those who have translated them are either ignorant or dull. Madame de Lafayette, who had the finest intelligence of any woman in France and who wrote the best, compared a poor translator to a lackey whom his mistress sends to convey a compliment to some one. That which his mistress has said to him in most polished phrase he will render most coarsely and will cripple and mutilate it; the greater the delicacy of the compliment the worse will be the lackey's version: there in a word is the most perfect image of a bad translator." The same just thought is expressed more tersely by Macaulay, when, describing Mrs. Thrale's anecdotes after they had passed through Mr. Croker's hands, he says that they become "as flat as champagne in decanters or Herodotus in Beloe's version."

These judgments on a large class of translations are much nearer the truth than Emerson's paradox. We are all deeply indebted to translators and translations, for very few of us command many languages and no one all the languages from which we desire to obtain either information or the gratification of our tastes in literature. Yet it cannot be denied that in the change from the original to a new medium something, however impalpable, is always lost in the process. In the literatures of knowledge or mere information the loss is so slight that it may be disregarded, but in the case of great prose writers like Herodotus, Thucydides or Demos-

themes, like Tacitus or Cicero, it becomes very serious indeed. In poetry the loss in translation is not only much greater than in prose but it is so far reaching that many good judges regard the adequate translation of poetry as an almost impossible feat. Without going to this extreme it may be fairly said that many of the beauties of poetry and much of the delicate effect of versification disappear in the passage from one language to another and we can only accept the poem in its changed form as a last resource, which is no doubt far better than nothing. It must of course be understood that what has just been said does not apply to those great books founded on the ideas expressed in the poetry of another language which are miscalled translations, but which are in reality new, creative and splendid works of imagination and style, quite independent in the adopted language, like the English Bible and FitzGerald's rendering of Omar Khayyam. Moreover the assertion that translations demonstrate the needlessness of studying Greek and Latin proves too much. For if it is sound it would make equally futile the study of any language, native or foreign, except for the purposes of very restricted conversation.

I have endeavored within the inexorable limits which time imposes to make replication of a general character to the objections most usually made against classical studies in our schools and universities. Let me now with all possible brevity try to give some of the affirmative arguments which can be made in their behalf. I will begin by quoting the plea made recently by certain distinguished men in England in behalf of the maintenance of classical studies, for in England there is the same movement against them as in the United States.

I take it from an admirable article by Professor Moore, published in the *Harvard Graduates Magazine* last December. Speaking of the signers of this public letter Professor Moore says:

"The list includes Lord Bryce, Lord Cromer, Lord Curzon, Walter Leaf, Sir William Osler, H. A. L. Fisher, Sir G. O. Trevelyan, Sir Archibald Geikie, the Bishop of Oxford, and the Archbishop of Canterbury, all known to Americans. Every lover of the classics will be glad to take as his creed their statement, a portion of which is here quoted:

" 'It is our conviction that the nation requires scientific method and a belief in mental training, even more than physical science, and that the former is by no means identical with the latter. We might enthrone physical science in all our schools without acquiring as a nation what we most need, the persuasion that knowledge is essential to progress, and that it has to be acquired by the cultivation of the faculty of independent reflection, which implies the power of selecting, combining and testing the essential facts of the subject in hand. This scientific method is not the peculiar property of physical science: all good work in all studies is based upon it; it is indispensable to law, history, classics, politics and all branches of knowledge rightly understood. What we want is scientific method in all the branches of an education which will develop human faculty and the power of thinking clearly to the highest possible degree.

" 'In this education we believe that the study of Greece and Rome must always have a large part, because our whole civilization is rooted in the history of these peoples, and without knowledge of them cannot be properly understood. The small city communities of Greece created the intellectual life of Europe. In their literature we find models of thought and expression, and

meet the subtle and powerful personalities who originated for Europe all forms of poetry, history and philosophy, and even physical science itself, no less than the ideal of freedom and the conception of a self-governing democracy; while the student is introduced to the great problems of thought and life at their springs, before he follows them through the wider but more confused currents of the modern world. Nor can it be right that the educated citizens of a great empire should remain ignorant of the first state that met the problem of uniting in a contented and prosperous commonwealth nations differing in race, temper and culture, and which has left so deep a mark on the language, law and political conceptions of Europe. Some knowledge of Latin is indispensable for the intelligent study of any one of these things, and even for the intelligent use of our own language. Greece and Rome afford us unique instances, the one of creative and critical intelligence, the other of constructive statesmanship. Nor can we afford to neglect the noble precepts and shining examples of patriotism with which their history abounds.' "

The signers of this letter lay emphasis on the effort to "enthrone physical science" in all the schools, and that is the precise effort which is being made here. Should this plan succeed there would be no brother suffered near that throne, whereas the classics ask only their place in the sun and would never exclude any other study which leads to learning and knowledge. No one can have a deeper or more reverential respect for the higher sciences in all forms than I. No one can more admire than I the unselfish devotion to the research which, unglorified and almost unrewarded, slowly amasses the obscure facts from which the hand of genius will one day pluck forth the brilliant discovery which

will help and serve and protect mankind. And yet, notwithstanding that all this is true, I cannot but believe that to the average boy—mark, the "average" boy—it is as profitable to have read Virgil and at least caught a glimpse of the battles on the Trojan Plain and of the wanderings of Odysseus as to be instructed in the "Hereditary Hair Lengths in Guinea Pigs" or in the "Anatomy and Development of the Posterior Lymph Hearts of the Turtle."

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mass of mankind science means the steam engine and the telegraph, the telephone, the dynamo and the motor car, wireless telegraphy and aeroplanes. It also means the submarine, the poisonous gas, the high explosives and all the new devices for the sudden obliteration of human lives. No one would think of belittling the value and helpfulness of these wonderful inventions which have beneficent purposes. But they all minister to physical comfort. They leave the soul of man untouched. The spirit of man, that which is highest in him, is not lifted up and strengthened by an automobile, or a traction engine, or even by an incandescent electric lamp. But the thoughts of men, of the philosophers, the moralists and the preachers of religion, of artists and architects, of the dramatists, the singers and the poets, whether conveyed to us in paintings, statues and buildings, or in books, are the real forces which have moved the world. Applied science and ingenious invention can change and have changed environment and have altered the scale of living and modes of life. But it is human thought and human imagination which have led men to the heights of intellectual and spiritual achievement. As Napoleon said, it is imagination which rules the world in the end, not the inventive faculty or the ability to make money. Rome developed every comfort, every luxury, every physical advantage which the wit of man at that time could devise and which the wealth of the world could purchase. But none the less literature faded, art declined, the lofty aspirations vanished, barbarian mercenaries filled the legions and the great empire fell and carried civilization down with it into hopeless ruin. Physical luxury and piled up wealth had reached the highest point ever attained, but they could

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not save Rome because the Roman spirit was dead. In our mania for quickening the work and pleasures of life and rendering it more comfortable and luxurious let us not forget that the vital principle without which all these things are dust and ashes is to be found elsewhere, in the books where the thought, the soaring aspirations, the imaginings of men are stored up for the guidance and the hope of succeeding generations.

In the old classical curriculum, to take a concrete illustration, boys at a very early period and at the most impressionable age heard the story of Leonidas and Thermopylae; they knew what was done at Marathon and Salamis; they had read of the death of Epaminondas; they realized that Greeks had died to save their civilization from the tyranny of the Orient. Passing from Greece to Rome they came to that larger patriotism, that devotion to the "Patria," to the country, which has been the inheritance of all Western civilization. It mattered not whether the old legends were true or false; the boys of the elder day before they had reached their teens were familiar with Curtius jumping into the gulf, Scaevola thrusting his hand into the flame, Regulus returning to Carthage; most admired of all, Horatius at the bridge, and they recited vigorously the words which Macaulay put into the hero's mouth:

"And how can man die better
Than facing fearful odds
For the ashes of his fathers
And the temples of his Gods."

Some boys whom I knew read a little Herodotus in the volume of selections in which they were prepared for college and there they found this sentence:

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These are the words of Aristides to his especial enemy Themistocles on the eve of the battle of Salamis. Roughly translated they mean: "It is more becoming at any time and more particularly now that we should show which one of us shall best serve our country." Within the last three months this simple sentence has seemed to me not inapplicable as a rule of conduct. I look with wonder and admiration at the filaments of the radio station climbing up toward the skies and take great satisfaction in the comfort of an automobile, but I find in neither the inspiration which breathes from this passage written down by a Greek historian born nearly twenty-five hundred years ago. To the boys who had all these stories and sentences drilled into them the result can be summoned up in Addison's line—

"Thy life is not thine own when Rome demands it."

With this idea the minds of the boys became thoroughly familiar. That the individual life was to be sacrificed to that of the nation, that it was every man's duty to offer his life for his country if the need came, was regarded as a truism and a commonplace, as a matter of course. It is well to have this conception of duty and patriotism looked upon as a matter of course, as something not to be disputed, and there can be no doubt that the early saturation of the boyish mind with the classics had much to do with this outcome. They knew of course that the Romans were in constant wars, that they brought home prisoners taken in battle and conquest and turned them into slaves as the Germans are doing

now. They understood that Roman rule was always efficient, often harsh, sometimes corrupt, although it was not guilty of systematic, organized and wholly wanton cruelty and barbarism. These things might all be true but the final and deep impression left by the classics on a boy's mind was of courage, fighting ability, a capacity for magnanimous deeds, and above all and more profound than all others was the classical conception of a patriotism ready always to sacrifice self and life for the country. Hence comes my reason for saying at the beginning that the connection between modes of education and the conceptions of maturity and the conduct of life is neither fanciful nor strained. This boyish experience is merely an illustration in a small way of the manner in which the classics have acted and reacted upon character and impulses at an early age. The proposition holds true on a far larger field. From the days of Plato and Aristotle, whose influence has been deeply felt for more than two thousand years, the philosophers, the historians, the poets, the orators, the dramatists, the jurists and lawmakers of Greece and Rome have moved and often guided the highest intelligences of civilization and have impressed themselves profoundly upon the thought and imagination of the world.

That word "imagination" brings me to my last and, it seems to me, to the one all-sufficient argument for giving to the classics an ample space in any scheme of education, especially if the education thus given ventures to prefix to itself the word "higher." We may or may not agree with the Christian pessimist that "The world is very evil," but there can be no doubt that it would be wholly intolerable if man was destitute of

imagination, unable to enjoy aught but the satisfaction of animal needs and appetites and utterly incapable of the creation of other worlds in which to find refuge from this one. For a race so cursed there would be no beauties in nature, none in the sun and moon and stars or in earth and ocean. There would be no beauties of art, for there would be no art. There would be no laughter, for humor cannot exist without imagination, and there would be no tears except those extorted by physical anguish.

The earliest craving of man as we catch sight of him at the dawn of history or among the tribes surviving in primitive condition is for something which will appeal to his imagination. He hungers for the fictitious and the unreal and for the promise of a happiness after death which this world apparently can never give. He listens to the story teller, he constructs intricate superstitions, he weaves from natural phenomena a mythology and a theology which suit his longings and his fancy, while his spoken, his only literature is poetry and not prose. As the imagination is keenest in a child, so is it strongest in the primitive man. Reason comes later and dulls imagination, brings it fortunately within bounds, but imagination never dies and it cries out for gratification from the newsboy spelling over the story of crime and detectives in the newspaper to the lover of poetry borne away by a few golden lines of Sappho to

"The sprinkled isles,
Lily on lily that o'erlace the sea,"

or shivering with Villon in mediaeval Paris over lost hopes and the miseries of a misspent life.

The works of imagination, upon which the soul de-

pends and which sustain the spiritual life of man, are found in all the forms of art that have survived, in the temple and the cathedral, in the statue and the picture. But the great mass of the treasures of the imagination are the creations of the poet, the maker and singer; of the dramatist and the teller of tales, and these are all stored in books and are called literature. A very large part of the literature of the world is composed of that which we have inherited from Greece and Rome. Mr. Watts-Dunton divides poetic imagination into two classes; that of absolute dramatic vision unconditioned by the personal or lyrical impulses of the poet, and that of relative dramatic vision which is more or less conditioned by the poet's personal or lyrical impulse. In the first class he puts Aeschylus, Sophocles, Shakespeare and Homer, and gives as examples of the second class Pindar, Dante and Milton; Sappho, Heine and Shelley. I cite this passage from a distinguished critic merely to show that to whatever heights you ascend in literature the Greeks are always there. Literature is one of the greatest forces in the world and always has been and always will be so. It comes to us with open hand, offering us knowledge, spiritual inspiration, the vast world created by human imagination, laughter and tears, happiness, sympathy, enjoyment, forgetfulness. Over a large part of this spacious kingdom of the mind rule Greece and Rome. Are we to shut that fair region off and refuse to boys and girls even the opportunity to enter it? Is it not wiser, as well as more just to them, at least to put into their hands the key which opens the gates of the enchanted garden to use or not later as they may see fit?

Even as I make the inquiry I hear the eternal ques-

tion in reply, What is the use of it? What indeed is the use of poetry at all? If poetry must have a use in order to live I might reply:

"The song that nerves a nation's heart
Is in itself a deed,"

and that the verses of Rouget de Lisle have meant more to France in the past hundred years than many useful scientific devices. But this is too narrow a ground. Poetry, the drama, literature in all its forms, true art of every kind, cannot be discarded or belittled unless you are prepared to say that beauty is useless, that there is no utility or profit to be found in the words of the founders of religions, of saints or apostles, of philosophers or moralists; in the marvellous creations of the poet, the dramatist or the tale teller. Such an attitude seems incredible and few people dare to take it openly, although many whose eyes are fixed solely on money making secretly believe in it. But an education wholly destitute of literature and of instruction in the contents and meaning of literature is of course no education at all. It could not really exist because the most ordinary human mind conceivable would refuse to be deprived of all imaginative pleasures and would teach itself. If then we are to have literature and art as a part of our education it seems a grave mistake to exclude from instruction the languages of the two nations which have so largely contributed to both.

If we love knowledge for its own sake, if we would have scholarship and cultivation and refined learning among us to give a savor and a perfume to life, we can hardly omit the classics. After all it was the return to the civilization and literature of Greece and Rome which

opened to us the treasure house of modern knowledge, and it is well to be grateful if nothing else. But I am one of those who think that there is something just here which should ever maintain the classics among us when we think of what they are and of what they did for us of the modern dispensation. When I watch the attempt to drive Homer and Virgil out of the schools and universities I can not but recall the old, old story of the plant, or grain, or flower, which opens the rock to their lucky possessor and discloses the high piled treasure and glittering jewels. It was a widely diffused tale. It is found in the Bible, in the Smiris; in the Orient as the Schamir or stone of knowledge; in Latin as the saxifraga, and in the Arabian Nights as the sesame of the Forty Thieves. In the Middle Ages the shepherd strikes the staff, in which is the magic flower, against the hillside and the rocks open. He enters and finds the Princess who bids him take gold to his fill. He does so and as he turns to go the Princess says, "Forget not the best." She means his staff. He merely takes more gold and as he goes the mountain walls close upon him and crush him. Usually the charm is a flower, a pale blue flower—

> "The blue flower, which Bramins say—
> Blooms nowhere but in Paradise,"

and when the treasure-finder turns away, loaded with gold, the flower cries,

> "Forget-me-not."

In the plentitude of our present knowledge, so slight compared to the vast unknown, so ample if contrasted only with what has gone before in our brief history, when we leave the treasure house, where all these riches

of the mind are heaped up before us, let us not forget the noble languages to which we owe not only all the learning of the ancients and the reopening of the road which has brought us to where we are today, but most of all the poetry and the beauty by which we are enabled to see visions and to dream dreams.

Then let us recall the words of another great poet of another race, who says to us,

"Where there is no vision the people perish."

# III

# STATEMENTS

## 1. PUBLIC LIFE

### Woodrow Wilson

President of the United States

We should have scant capital to trade on were we to throw away the wisdom we have inherited and seek our fortunes with the slender stock we ourselves have accumulated. This, it seems to me, is the real, the prevalent argument for holding every man we can to the intimate study of the ancient classics. . . . What you cannot find a substitute for is the classics as literature; and there can be no first hand contact with that literature if you will not master the grammar and the syntax which convey its subtle power. Your enlightenment depends on the company you keep. You do not know the world until you know the men who have possessed it and tried its wares before you were ever given your brief run upon it. And there is no sanity comparable with that which is schooled in the thoughts that will keep. . . . All literature that has lasted has this claim upon us—that it is not dead; but we cannot be quite so sure of any as we are of the ancient literature that still lives, because none has lived so long. It holds a sort of primacy in the aristocracy of natural selection.

Published in "The Practical Value of Latin," p. 90.

The desire of all who in recent years have undertaken the reform of college studies in this country has been to find some plan by which to give consistency to the selec-

[illegible] which the undergraduate is nowadays called upon to make among the multitude of courses and subjects of modern instruction. That is the object of our plan, and we hopefully expect it to answer its purpose. Its object is organization: to present for the use of the student an organic body of studies, conceived according to a definite and consistent system and directed toward a single comprehensive aim, namely, the discipline and development of the mind.

In order to accomplish this, and because the students who come to us and to all the larger universities of the country come with the most various and unequal preparation, it was deemed necessary to make the first, the freshman year, a year altogether of prescribed studies and both freshman and sophomore years, years devoted to subjects elementary and fundamental in character; the languages ancient and modern, mathematics, physics, chemistry, logic, psychology, history and the outlines of English literature. Every student is required to take mathematics, physics, logic, psychology, a modern language and one or both of the ancient classical languages, as well as some drill in the language of his own English tongue. * * *

And in choosing the subjects to be incorporated we have found ourselves inclined to concentrate as much as possible on subjects from which we knew that discipline really was to be got in the schools. Old subjects are, generally speaking, taught with more efficiency than new subjects. Teachers of the classics and of mathematics have an assurance and a perfection of method in every way more serviceable than the ways and means of training now at the disposal of—at any rate the ways and means of training now actually used by—teachers

of the modern languages. The elements of such sciences as physics and chemistry are not taught in the schools with as much thoroughness and success as has been attained in the teaching of mathematics; and we would rather have well trained students than students merely versatile and variously informed, whatever the means or the medium of their training.

The question of requiring or not requiring Greek did not detain or distress us. We were assured by experience that students drilled in the full classical training came to us better prepared for success in college tasks than those who had studied only Latin and substituted a modern language for Greek; and we were clear in our judgment that the old historical degree of Bachelor of Arts, the only degree that ever has been stamped with something like a definite significance, ought not to be wrested to strange meanings, to the obliteration of all definition in the labels of graduation. We therefore retained Greek as of course as a requirement of all those who should enter as candidates for the Arts degree.

From Report as President of Princeton University on revision of the course of study.

## William Howard Taft

Ex-President of the United States
President American Bar Association, 1913

I am strongly in favor of continuing the classics in an academic education. I consider that, in addition to the mental discipline which study of them affords, they are the most helpful in the matter of correct English style, in laying sound foundations for grammatical construction, and in furnishing a basis for the study of all modern languages.

I believe that the success of the Continental systems of education and of that in Great Britain establishes the fact that not only are the classical studies important as an essential element in the best liberal education along with mathematics, science, history, economics, philosophy and modern literature, but that the result of the Continental systems of education shows the practical value of such classical studies.

THEODORE ROOSEVELT
Ex-President of the United States

You ask me to say a word on behalf of classical studies in liberal education. I gladly do so. But first it is necessary to discriminate between the technical or vocational education meant to fit a man for one definite occupation, and the liberal or cultural education meant to give a man the power of high enjoyment and the possibility of high usefulness arising from a wide knowledge of the life of the ages that are past.

A real democracy must see that the chance for an elementary education is open to every one. This is the first essential. But it is also essential that there should be ample opportunity for every kind of higher education. The education of the great majority, while the most important problem in democratic education, is in no way or shape by and of itself sufficient. Democracy comes short of what it should be just to the extent that it fails to provide for the exceptional individual, no matter how poor his start in life, the highest kind of exceptional training; for democracy as a permanent world force must mean not only the raising of the general level, but also the raising of the standards of excellence to which

only exceptional individuals may attain. The tableland must be raised, but the high peaks must not be levelled down; on the contrary, they too must be raised. Highly important though it is that the bricklayers be excellent, it is nevertheless a grave mistake to suppose that any excellence in the bricklayers will enable us to dispense with architects.

In this country we have met better than in other countries the demand for general popular education, and there is now on foot a widespread and most useful and important agitation to better the practical type of general education by making it more practical, by making it more a training of the average boy and girl for what that average boy or girl must do in after life. The higher technical schools carry out the same purpose on a more advanced scale. Law schools, medical schools, agricultural institutes, engineering schools and all similar schools for technical training are being improved and are increasing in numbers, and provision is made in universities in various ways for the development of this training for practical life. This type of education has a value which is so essentially commercial that in the majority of cases this value can be measured by the income which it secures. Such an education is undoubtedly the type which is most important for the average man; and therefore in a high degree for the country. It is also that which is usually most attractive to the average man and to the public. In consequence, the general feeling tends to be, not only that this kind of education is most important for the majority—which is true; but that no other kind of education is very important for anybody—which is false. I quite agree that it is a waste of time to force the average boy to

acquire a smattering of classicism. The anti-classicists are right in fighting this sort of compulsion. But they will do infinite damage if they destroy the opportunities and the inspiration for classical study in school and college.

Your conference is called under the joint action of the classical and archaeological departments, with advisors from the other departments also. You emphasize the importance of classical studies, not in the least as all-sufficient in themselves, but as forming an essential element, yet only one element, in the field of interest which includes physical science, history, philosophy, modern literature and many other subjects—but all studied from the cultural, and not the technical or commercial standpoint. You are entirely right. Nothing makes a man more interesting to himself or to others than that wide knowledge of men and life, that wide knowledge of the globe and of man's past and present on the globe, which is given by a liberal or cultural education in which the study of classical literature is an essential element. Such study is itself a powerful incentive toward a general knowledge of literary, social and political history. Moreover, while an education of this kind is not primarily utilitarian (using the word "utilitarian" in its usual significance) it often, as a by-product, serves utilitarian ends of capital importance to men of large interests, especially the interests of statecraft; while familiarity with poetical and imaginative literature, both English and classical, is of high value to every man who works in any field where it is desirable to express high thinking in language which is clear, simple and lofty.

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This does not mean either the elimination of the specialist or the mere return to the college course of fifty years ago. Most certainly cultural education ought to provide for the specialist, especially of the higher type; for the scientific man whose researches have no more immediate money value than had the researches of the Alexandrian and Syracusan mathematicians who twenty-two centuries ago laid the foundations of geometry; for the professor of Celtic or Finnish or Sclavonic literature who can never expect that even a handful of pupils will enjoy in the original the Cuchulain story, or the Kalevala, or the love songs of the Ukraine. No community can develop a great and many sided civilization unless there is an ample base of non-remunerative work.

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A cultural education must include the classics. It must not be based only on the classics. The Greek literature is one of the two noblest literatures in the world, the other being the English. Latin literature as such does not stand in the same rank with Greek; but it possesses an immense importance because the Latin civili-

zation is the direct ancestor of modern Occidental civilization, and because the Latin tongue was for fifteen centuries the cultural tongue of Europe. With one or the other, and if possible with both, of these two classic languages and literatures every liberally educated man should be familiar. He should also be familiar with at least one of the great modern culture languages, such as French, Italian, German, Spanish or Portuguese, each of which has a noble literature. Every liberal course should also include a wide sweep of general history and pre-history, for a liberal scholar should certainly have vividly in mind the tremendous drama of man's progress through the ages. A competent knowledge of science must also be part of any really liberal education. But this does not mean the science taught in order to turn out a commercial chemist, an engineer or an electrician. It means that the man of liberal education should be a man who in addition to a broad classical training also possesses so broad a scientific training that the primary facts of the universe in which we live are vivid in his mind and form an integral portion of his stock of knowledge. The man with such broad liberal training is perhaps not apt to be a technical expert in any special vocation; for his training stands outside the most direct line to pecuniary reward. Yet he has a great place to fill, for he has been fitted to become a leader in public thought, and a true interpreter to the people of the development and meaning of our civilization in its most important aspects.

Of course all this does not mean failure to recognize the prime importance of vocational or trade training for the great majority. Technical education is essential to the work of the world. The vast development of

education along technical lines meets an urgent public need. But there are other needs also. "Man shall not live by bread alone." Certain institutions of higher learning ought to devote their attention to satisfying these other needs. It will be for the general welfare. In no other country is it so necessary as in ours to provide fully, for those who have the chance and desire to take it, broad and high liberal education, in which one essential element shall be classical training.

### Grover Cleveland

**Former President of the United States**

Grover Cleveland was educated in the Academy at Clinton, New York, taking the classical course in preparation for Hamilton College, but was obliged to leave before entering college, in order to help in supporting his mother and sisters. Consequently his classical training was limited to his school course of study. After leaving the Presidency in 1897, the remaining eleven years of his life were passed in Princeton, and for the last seven years of his life he served as Trustee of Princeton University. He was unwavering in his belief in the indispensable value of classical studies, and held that any attempt to weaken their influence or failure to maintain them as essential studies in the college course would be a violation of the terms of Princeton's Charter, which defines the purpose of the institution as the "Education of Youth in the learned Languages and in the liberal Arts and Sciences."

He recalled with satisfaction the clear thought and style of the old writers in "The Federalist," attributing their skill in expression to familiarity with the classics

and the English Bible. During the revision of the curriculum in 1904 he took a firm position in favor of requiring school and college Latin for all bachelor's degrees in the liberal arts, and Greek and Latin for the historic Bachelor of Arts degree. He often talked over these matters with me, discussing the arguments on both sides. His general attitude on college studies, based on his fixed belief in discipline and training, is well revealed in the following passage from his address delivered in behalf of the Trustees of the University in October, 1902, on the occasion of President Wilson's inauguration:

"While therefore, as has been already intimated, Princeton will not be left behind in any real and effective educational advance that falls within the limitations of her mission, and while she will promptly avail herself of opportunities which more completely fill the scope and area of her instructional responsibilities, all will be done solely to the end that she may, with the best effect, teach the learned languages, the liberal arts and sciences and religious truth. We do not give to these words a narrow and too literal meaning; but we hold that when broadly and fairly interpreted, they not only fix the direction and quality of Princeton's chartered endeavor, but also define a service serious enough and comprehensive enough to engage always, and in all circumstances, the highest and best university work.

"If new born impatience should ever demand a swifter educational current and be content with its shallower depth, and if the solid and substantial acquirement we offer should ever be discredited as unnecessarily irksome, Princeton will remember that men educated long ago in accordance with her methods are still teachers of

the present generation; and that the lives they led, the students they fitted for instructors, and the records they left of their wisdom, are to this day dutifully acknowledged as undiminished forces in higher education, wherever it has a standing place. We will not be convinced that the human mind has in these latter days become so fundamentally enlarged that a broad and useful education can by some pleasant process be easily gained, nor that the acuteness of the human intellect has so kept pace with the eager hurry of the time that with no toil or patient wooing an education worth having can be bought or seized and forced to do service in a vainglorious and trifling pretence of erudition. If false educational notions should prevail, Princeton will bide her time until they are spent, and until saner judgment shall recognize her conscientious obedience to the demands of her charter compact."

Statement of Dean Andrew F. West, Princeton University.

## Robert Lansing

Secretary of State

I am glad of the opportunity to say a word in behalf of the continuance of classical studies in our colleges and universities because I firmly believe that that particular branch of learning has been a most potential influence in the intellectual development of modern society.

There is a prevalent tendency at the present time to exalt the study of those branches of knowledge which pertain to physical life. It is a tendency which manifests the materialistic spirit of the age and finds its expression in the words "specialization," "utility," "effi-

ciency." I feel that this spirit is assuming alarming proportions and is becoming a very real menace to culture which develops the nobler qualities in man and raises him above the sordid things of life.

It is better to possess a mind trained and able to think in terms other than those of material accomplishment. It is finer to measure life by ideals than it is by accumulated wealth.

I am convinced that the study of the classics furnishes a man with mental processes which he cannot otherwise acquire, that it elevates him above the materialistic and gives him a loftier conception of the realities. Experience has proven that acquaintance with classical thought perfects the intellect and makes it able to enter the other fields of knowledge with keener perception of the things which make life worth the living.

It is my opinion that the extension of classical studies in our institutions of higher learning should be generally encouraged. They are worth all the time and labor which can be given to them, because from them spring taste and refinement, the power and desire to enjoy the better things. These are characteristics of culture, and culture ought to be the chief end of a college or university education.

ELIHU ROOT

Chairman of War Commission to Russia
Former Secretary of State
President of the American Society of International Law
President American Bar Association, 1915

I am a firm believer in the value of studying Greek and Latin. Although in after life one may forget much that he has learned, he can never lose the influence upon

his character. Even a slight appreciation of those wonderful races from whom so much of our civilization has come, gained by studying intently the very words they spoke and wrote, tends to broaden the student's vision and enlarge his understanding of life.

JOHN W. FOSTER

Former Secretary of State
Minister to Mexico, 1873-1880
Minister to Russia, 1880-1881
Minister to Spain, 1883-1885
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My experience in the practice of law and my observation of public affairs have led me to look with regret upon the diminishing interest in our higher institutions of learning in the study of the ancient classics. The modern university spirit seems to tend to the elective system and to study in the scientific and more practical departments of knowledge. I doubt very much whether it is wisest to leave entirely to the immature youth the selection of his course of study. So also it may be better to train and develop the mind in the earlier years than to store it with knowledge, which may well come later. If the university is to maintain its proper place as the seat of higher learning, Greek and Latin should not be relegated to an unimportant place in the curriculum, nor their study discouraged.

History tells us of the unequalled refinement of the Greek race in the days of Pericles. Only a few doubtful and imperfect specimens of the chisel of Phidias and his school remain, and the skill of Apelles' brush is entirely lost to us; but the highest evidence of the art, refinement and thought of that golden age has come

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down to us unimpaired in the Greek language, the most perfect achievement of the human race. No better training for the youthful mind can be devised than the study of this language and the mastery of the high and polished thoughts which it has preserved. It matters not if in the resistless hurry of our practical age the Greek which we acquired in our youth passes from our memory; its influence on the mind will never be obliterated.

Even the advocates of the elective curriculum which requires no Greek or Latin admit that the study of those languages in the writings of their philosophers, poets and historians tends to produce the most cultivated minds and the highest style of composition and expression.

I earnestly hope that your conference will awaken a new interest in these languages, and that there may be a restoration in our universities and colleges of the condition of things when the degree of Bachelor of Arts meant classical education.

### George W. Wickersham

Former Attorney-General of the United States
Chairman Judiciary Committee New York Constitutional Convention, 1915

I perhaps look at the subject from a more impartial standpoint than many, because my own education did not include a study of the classics, and I have always greatly regretted that I gave time to modern languages and history to the exclusion of all classical study. For I regard an education which does not include a knowledge of Greek and Latin history and literature as defective, and certainly the knowledge obtained through

the medium of translations must be less accurate than that which is obtained from original sources. The history, the philosophy and the literature of the two greatest nations in our spiritual ancestry may not be neglected without immeasurable loss.

### Herbert Hoover

Head of American Relief Commission to Belgium
Food Administrator of the United States

I am of the opinion that the value of classical studies is seriously underestimated today. The usefulness of Latin and Greek half learned and soon abandoned is another matter. Wholly outside of their acknowledged literature value, classical studies cultivate the power of expression and a discriminating use of words essential to clearness of thinking.

### Viscount Bryce

Former Ambassador from Great Britain to the United States

I do not say that the classics will make a dull man bright, nor that the man ignorant of them may not display the highest literary or the highest practical gifts, as indeed many have done. Natural genius can overleap all deficiencies of training. But a mastery of the literature and the history of the ancient world makes everyone fitter to excel than he would have been without it, for it widens the horizon, it sets standards unlike our own, it sharpens the edge of critical discrimination, it suggests new lines of constructive thought. Let no one be afraid of the name, "dead languages." No language is dead which perfectly conveys thoughts that are alive and are as full of energy now as they ever were. An

idea or a feeling grandly expressed lives forever, and gives immortality to the words that enshrine it.

For the cable message of Viscount Bryce see page 41.

## Lord Cromer

Former Viceroy of India
Late Agent and Consul General in Egypt

Although a soldier and a man of affairs, he was a writer of first rate ability. This is demonstrated by other writings besides his "Modern Egypt." Only a few years ago, after his retirement and when he was living in England, he published a volume entitled "Political and Literary Essays" which makes delightful reading. In this book he touches on biography, history, the classics, and problems of education, as well as current political questions. In 1908 he published a volume of paraphrases and translations from the Greek. But he was very far from being a pedant or academician. Those American educators who are sincerely afraid that military training and discipline may destroy our love of art and literature will be considerably cheered if they will take the trouble to read two or three of Lord Cromer's books. And those who oppose the study of Latin and Greek classics on the ground that, being dead languages, they make a man dead to the currents of modern life, will find in the career of Lord Cromer a man who could read the Greek poets, draw up a financial budget for Egypt, decide a lawsuit between two peasants with the tactful judgment of Solomon, and, if necessary, command an army.

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### Henry Cabot Lodge

United States Senator from Massachusetts

For Senator Lodge's address see page 97.

### George Frisbie Hoar

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Of one thing I feel very confident. That is, the men whom I have known at the bar, in public life and in the pulpit, who have been good Latin or Greek scholars, and who have kept up the love and study of either language through life, especially those who have been lovers of Greek, have shown great superiority in the matter of effective public speaking.

### Willard Saulsbury

United States Senator from Delaware

In my judgment a fair knowledge of Latin is indispensable to any one who intends to follow a professional life.

### Champ Clark

Speaker of the House of Representatives

I think Latin is a great educator and am strongly in favor of its study. . . . My reasons for thinking that Latin is a good means of education are: (1) it is one of the best mental drills possible; (2) there are so many English words derived from Latin that it is of inestimable value in tracing the meaning of words and enlarging the vocabulary; (3) the foundations of the French, Spanish and Portuguese languages rest on Latin.

zation is the direct ancestor of modern Occidental civilization, and because the Latin tongue was for fifteen centuries the cultural tongue of Europe. With one or the other, and if possible with both, of these two classic languages and literatures every liberally educated man should be familiar. He should also be familiar with at least one of the great modern culture languages, such as French, Italian, German, Spanish or Portuguese, each of which has a noble literature. Every liberal course should also include a wide sweep of general history and pre-history, for a liberal scholar should certainly have vividly in mind the tremendous drama of man's progress through the ages. A competent knowledge of science must also be part of any really liberal education. But this does not mean the science taught in order to turn out a commercial chemist, an engineer or an electrician. It means that the man of liberal education should be a man who in addition to a broad classical training also possesses so broad a scientific training that the primary facts of the universe in which we live are vivid in his mind and form an integral portion of his stock of knowledge. The man with such broad liberal training is perhaps not apt to be a technical expert in any special vocation; for his training stands outside the most direct line to pecuniary reward. Yet he has a great place to fill, for he has been fitted to become a leader in public thought, and a true interpreter to the people of the development and meaning of our civilization in its most important aspects.

Of course all this does not mean failure to recognize the prime importance of vocational or trade training for the great majority. Technical education is essential to the work of the world. The vast development of

education along technical lines meets an urgent public need. But there are other needs also. "Man shall not live by bread alone." Certain institutions of higher learning ought to devote their attention to satisfying these other needs. It will be for the general welfare. In no other country is it so necessary as in ours to provide fully, for those who have the chance and desire to take it, broad and high liberal education, in which one essential element shall be classical training.

### Grover Cleveland

**Former President of the United States**

Grover Cleveland was educated in the Academy at Clinton, New York, taking the classical course in preparation for Hamilton College, but was obliged to leave before entering college, in order to help in supporting his mother and sisters. Consequently his classical training was limited to his school course of study. After leaving the Presidency in 1897, the remaining eleven years of his life were passed in Princeton, and for the last seven years of his life he served as Trustee of Princeton University. He was unwavering in his belief in the indispensable value of classical studies, and held that any attempt to weaken their influence or failure to maintain them as essential studies in the college course would be a violation of the terms of Princeton's Charter, which defines the purpose of the institution as the "Education of Youth in the learned Languages and in the liberal Arts and Sciences."

He recalled with satisfaction the clear thought and style of the old writers in "The Federalist," attributing their skill in expression to familiarity with the classics

and the English Bible. During the revision of the curriculum in 1904 he took a firm position in favor of requiring school and college Latin for all bachelor's degrees in the liberal arts, and Greek and Latin for the historic Bachelor of Arts degree. He often talked over these matters with me, discussing the arguments on both sides. His general attitude on college studies, based on his fixed belief in discipline and training, is well revealed in the following passage from his address delivered in behalf of the Trustees of the University in October, 1902, on the occasion of President Wilson's inauguration:

"While therefore, as has been already intimated, Princeton will not be left behind in any real and effective educational advance that falls within the limitations of her mission, and while she will promptly avail herself of opportunities which more completely fill the scope and area of her instructional responsibilities, all will be done solely to the end that she may, with the best effect, teach the learned languages, the liberal arts and sciences and religious truth. We do not give to these words a narrow and too literal meaning; but we hold that when broadly and fairly interpreted, they not only fix the direction and quality of Princeton's chartered endeavor, but also define a service serious enough and comprehensive enough to engage always, and in all circumstances, the highest and best university work.

"If new born impatience should ever demand a swifter educational current and be content with its shallower depth, and if the solid and substantial acquirement we offer should ever be discredited as unnecessarily irksome, Princeton will remember that men educated long ago in accordance with her methods are still teachers of

the present generation; and that the lives they led, the students they fitted for instructors, and the records they left of their wisdom, are to this day dutifully acknowledged as undiminished forces in higher education, wherever it has a standing place. We will not be convinced that the human mind has in these latter days become so fundamentally enlarged that a broad and useful education can by some pleasant process be easily gained, nor that the acuteness of the human intellect has so kept pace with the eager hurry of the time that with no toil or patient wooing an education worth having can be bought or seized and forced to do service in a vainglorious and trifling pretence of erudition. If false educational notions should prevail, Princeton will bide her time until they are spent, and until saner judgment shall recognize her conscientious obedience to the demands of her charter compact."

Statement of Dean Andrew F. West, Princeton University.

## Robert Lansing

Secretary of State

I am glad of the opportunity to say a word in behalf of the continuance of classical studies in our colleges and universities because I firmly believe that that particular branch of learning has been a most potential influence in the intellectual development of modern society.

There is a prevalent tendency at the present time to exalt the study of those branches of knowledge which pertain to physical life. It is a tendency which manifests the materialistic spirit of the age and finds its expression in the words "specialization," "utility," "effi-

ciency." I feel that this spirit is assuming alarming proportions and is becoming a very real menace to culture which develops the nobler qualities in man and raises him above the sordid things of life.

It is better to possess a mind trained and able to think in terms other than those of material accomplishment. It is finer to measure life by ideals than it is by accumulated wealth.

I am convinced that the study of the classics furnishes a man with mental processes which he cannot otherwise acquire, that it elevates him above the materialistic and gives him a loftier conception of the realities. Experience has proven that acquaintance with classical thought perfects the intellect and makes it able to enter the other fields of knowledge with keener pereeption of the things which make life worth the living.

It is my opinion that the extension of classical studies in our institutions of higher learning should be generally encouraged. They are worth all the time and labor which can be given to them, because from them spring taste and refinement, the power and desire to enjoy the better things. These are characteristics of culture, and culture ought to be the chief end of a college or university education.

ELIHU ROOT

Chairman of War Commission to Russia
Former Secretary of State
President of the American Society of International Law
President American Bar Association, 1915

I am a firm believer in the value of studying Greek and Latin. Although in after life one may forget much that he has learned, he can never lose the influence upon

his character. Even a slight appreciation of those wonderful races from whom so much of our civilization has come, gained by studying intently the very words they spoke and wrote, tends to broaden the student's vision and enlarge his understanding of life.

JOHN W. FOSTER

Former Secretary of State
Minister to Mexico, 1873-1880
Minister to Russia, 1880-1881
Minister to Spain, 1883-1885
Member Anglo-Canadian Commission, 1898
Representative of China at Second Hague Conference, 1907

My experience in the practice of law and my observation of public affairs have led me to look with regret upon the diminishing interest in our higher institutions of learning in the study of the ancient classics. The modern university spirit seems to tend to the elective system and to study in the scientific and more practical departments of knowledge. I doubt very much whether it is wisest to leave entirely to the immature youth the selection of his course of study. So also it may be better to train and develop the mind in the earlier years than to store it with knowledge, which may well come later. If the university is to maintain its proper place as the seat of higher learning, Greek and Latin should not be relegated to an unimportant place in the curriculum, nor their study discouraged.

History tells us of the unequalled refinement of the Greek race in the days of Pericles. Only a few doubtful and imperfect specimens of the chisel of Phidias and his school remain, and the skill of Apelles' brush is entirely lost to us; but the highest evidence of the art, refinement and thought of that golden age has come

down to us unimpaired in the Greek language, the most perfect achievement of the human race. No better training for the youthful mind can be devised than the study of this language and the mastery of the high and polished thoughts which it has preserved. It matters not if in the resistless hurry of our practical age the Greek which we acquired in our youth passes from our memory; its influence on the mind will never be obliterated.

Even the advocates of the elective curriculum which requires no Greek or Latin admit that the study of those languages in the writings of their philosophers, poets and historians tends to produce the most cultivated minds and the highest style of composition and expression.

I earnestly hope that your conference will awaken a new interest in these languages, and that there may be a restoration in our universities and colleges of the condition of things when the degree of Bachelor of Arts meant classical education.

GEORGE W. WICKERSHAM

Former Attorney-General of the United States
Chairman Judiciary Committee New York Constitutional Convention, 1915

I perhaps look at the subject from a more impartial standpoint than many, because my own education did not include a study of the classics, and I have always greatly regretted that I gave time to modern languages and history to the exclusion of all classical study. For I regard an education which does not include a knowledge of Greek and Latin history and literature as defective, and certainly the knowledge obtained through

the medium of translations must be less accurate than that which is obtained from original sources. The history, the philosophy and the literature of the two greatest nations in our spiritual ancestry may not be neglected without immeasurable loss.

### Herbert Hoover

Head of American Relief Commission to Belgium
Food Administrator of the United States

I am of the opinion that the value of classical studies is seriously underestimated today. The usefulness of Latin and Greek half learned and soon abandoned is another matter. Wholly outside of their acknowledged literature value, classical studies cultivate the power of expression and a discriminating use of words essential to clearness of thinking.

### Viscount Bryce

Former Ambassador from Great Britain to the United States

I do not say that the classics will make a dull man bright, nor that the man ignorant of them may not display the highest literary or the highest practical gifts, as indeed many have done. Natural genius can overleap all deficiencies of training. But a mastery of the literature and the history of the ancient world makes everyone fitter to excel than he would have been without it, for it widens the horizon, it sets standards unlike our own, it sharpens the edge of critical discrimination, it suggests new lines of constructive thought. Let no one be afraid of the name, "dead languages." No language is dead which perfectly conveys thoughts that are alive and are as full of energy now as they ever were. An

idea or a feeling grandly expressed lives forever, and gives immortality to the words that enshrine it.

For the cable message of Viscount Bryce see page 41.

## Lord Cromer

Former Viceroy of India
Late Agent and Consul General in Egypt

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### A. Mitchell Palmer

Former Member of Congress from Pennsylvania

I believe that the study of Latin and Greek has been of much practical value to me in my professional work. I am bound to say that this is somewhat more true of Latin than Greek, for the reason that so much of our law comes from the Roman times and so many of our legal maxims are phrased in the Latin language that to a lawyer a knowledge of Latin is peculiarly important and helpful. Greek has been of more value to me by reason of the training it gave me in a proper interpretation of words and phrases than in the practical use of the language itself. Of course this can be said of the study of any language, but the Latin and Greek are such accurate languages, capable of such precision of statement, that their study teaches men who must be accurate in statement methods which they might otherwise fail to learn.

### Samuel W. McCall

Governor of Massachusetts

I compliment you upon the movement you have undertaken, for the time has indeed come for urging the revival of classical studies when so many of our colleges seem to be yielding to the notion that it is the main end of education to make a man a merely efficient creature fitted to do battle with the obstacles of nature and to produce with increasing rapidity the things he needs or desires to consume. Under any trade or calling there should be a sound basis of culture or otherwise the man may be made subordinate to the thing he does, and we are likely to see him as we now do turning upon him-

self the forces of destruction and employing them to blow up civilization. That basis of culture it is the prime function of our colleges to give. The languages of Greece and Rome form the best linguistic models. The diligent study of them and of the masterpieces of literature which have caused them to live so many centuries is the choicest instrumentality of intellectual culture. It refreshes and sweetens the spirit and cultivates the love of letters and the literary art which is the foremost of all the arts. To the extent to which our colleges shall withdraw from the field of liberal studies and become mere teachers of trades and callings, to that extent will they abdicate the high function they have been created to exercise.

M. G. BRUMBAUGH

Governor of Pennsylvania

The history of education shows no more abiding and essential element in the training of a people than the study of the humanities.

JOHN M. ESHLEMAN

Former Lieutenant-Governor of California

I took a full classical course in the university, and I am very strongly inclined toward classical training. I believe the tendency is too strongly toward utility training, and I very much regret to observe that some of our eminent educators seem inclined to forget the value of the classics and training for training's sake. It is useless, in my opinion, to attempt to train for the emergency. All that can be done is to guide the student properly along broad general lines to the end that when

the emergency arises his general information or his general training will enable him to meet it.

SEYMOUR VAN SANTVOORD
Public Service Commission, State of New York

After a somewhat varied, extremely happy and not altogether unsuccessful life as lawyer, farmer, manufacturer and banker, I declare unreservedly that not only has my smattering of the classics proved—to borrow the Sunday school boy's characterization of a lie—"an ever present help in time of trouble," but that under observation, experience and reflection my respect for and confidence in academic education have steadily increased. I would like to be enrolled in any concerted movement to oppose extension beyond the bare experimental stage of the proposed new system of teaching.

## 2. BUSINESS

FAIRFAX HARRISON
Chairman Committee on National Defence of American Railway Association
President of the Southern Railway

There is another claim for study of the classics upon which I never lose an opportunity to insist, and that is its magisterial position in any scheme of education for leadership, a kind of education which there is danger may be neglected in the social democracy to which we are tending. . . . The sane mind which has felt the stirring of the classical spirit, which has known the peace which passeth all understanding and knows that some of it is due to contact with the influence of Hellas, can not but pray that that influence shall not die.

For President Harrison's telegram see page 79.

## Howard Elliott

Former President New York, New Haven and Hartford Railway
New York City

I believe that the study of Latin and Greek, as a training for the mind, is of great value, and that such study helps a man, no matter what his after life is, and also helps him by encouraging him to appreciate better good literature and good reading.

## T. C. Powell

Vice-President Queen and Crescent Railroad, Cincinnati

We are living in an age of specialists and it sometimes appears as though accuracy is regarded as a special course and that only those who intend to devote their business or professional life to accurate mathematical and chemical calculations are justified in paying much attention to accuracy.

But when you realize that when a boy has been taught in the public schools and goes into the business world the first course through which he is put is one which is intended to impress upon him the necessity for accuracy, you will appreciate that this is one of the crying needs of the present system of education.

It is for this reason that I vote in favor of classics and mathematics and for history and geography. These studies are more likely to insure accuracy than a slight knowledge of a great many subjects.

## Max Thelen

President State Railroad Commission of California

The value which any man derives from the study of a certain subject is largely a matter personal to him. I

regard the chief value to be derived from the study of any subject, whether it be Latin, or engineering, or law, to be the strength and power which the student derives from the mastery of facts and the ability to use them. The training which a man receives in one subject always enables him to master more efficiently the facts of another subject.

I regard Latin as one of the very best subjects in which to receive training, and for that reason, if I had my college course to do over again, I should include, as before, three years of Latin in addition to the four-year high school course.

### James P. Munroe

Boston Chamber of Commerce

The old education with its Latin grammar, and more Latin grammar and still more Latin grammar, produced a hard headed, hard fisted, hard hearted race, but it was, in the main, a race sound physically, mentally and morally. Many of the new methods of gentle cooing toward the child's inclinations, of timidly placing a chair for him before a disordered banquet of heterogeneous studies, may produce ladylike persons, but they will not produce men.

### Alba B. Johnson

President of the Baldwin Locomotive Works, Philadelphia
For President Johnson's address see page 75.

### William Sloane

President of W. and J. Sloane, New York City

I believe that the slow processes of translation of the classics (which in my opinion should be compulsory in

the academic course for a B.A. degree) make good training for the boy who has chosen a business career. The business man's day is prosaic, the men he meets are as a rule men of little or no schooling. The business principles he finds are not always in accord with his preconceived ideas of honesty; there isn't much art or poetry in it all; and, unless he has something to fall back upon, some background to his life and thought, some such continual source of quiet comfort and pleasure as a classical education will afford him, life will be a very empty thing.

HENRY R. TOWNE

Yale and Towne Manufacturing Company, New York City

I was fortunate during my school days in being well drilled in Latin and Greek (at one time under the tutorship of the late Dr. Howard Horace Furness, then just graduated from Harvard), and during all my life I have appreciated the benefit of this training because of the better understanding it has given me of the origin of our own language, and the correct use of words, and also because of its aid in the study of other languages. I think it would be a great mistake to eliminate the study of the classics entirely from our schools and colleges.

On the other hand, I would strongly advise a reform in the method of teaching Latin and Greek except to very advanced students. I would largely omit the memorizing of rules of grammar, conjugation of verbs, etc., and substitute therefor the methods now employed in teaching modern languages to beginners. This implies chiefly an understanding of the theory of the lan-

guage, the mode of constructing sentences, and the acquisition of familiarity with a large vocabulary of the words of greatest use, or of closest connection with our own language. Thus simplified I believe that the study would be made far more interesting than now to young students, and would not require more of their time than could fairly be appropriated.

### Richard H. Edmonds

Editor of the *Manufacturer's Record*, Baltimore

As it was never my privilege to be a college student, I am unable to write you as to the value of classical studies. I might, however, if time permitted, write you as to the disadvantage of having been deprived of classical studies.

### W. S. Layfield

Atlas Powder Company, Wilmington, Del.

I consider the possession of a knowledge of Latin and Greek an accomplishment and an essential part of a good education aside entirely from the fact that in certain professions such knowledge is absolutely necessary.

### Morris Whitridge

Baltimore

I am a business man, but my classics has been a help to me from an aesthetic point of view, while my mathematics trained my mind and makes me decide accurately when a prompt decision is necessary in these days of high tension in business. I am a strong believer in Greek, Latin, mathematics and the old fashioned method of education. We have too many frills these days.

### Henry L. Higginson
Boston

Any knowledge of the ancient languages, called "dead," is good. French and English are built, as it were, on Latin. By knowing Latin, one knows almost by instinct what a word means, when it appears in another language.

### Clarence H. Kelsey
President of Title Guarantee and Trust Co., New York City

I am glad to give you my view about the importance of retaining the study of Latin and Greek as a part of the requirements for the degree of Bachelor of Arts in our college courses.

I am not in sympathy with the elimination of these studies and replacing them with modern languages or other substitutes. The study of Greek, particularly, I consider as fine mental training as is to be had. Of course, on the theory that one wishes to find himself using in every day work through life all that he has studied in college, Latin and Greek, perhaps, do not seem to answer the purpose; but there is a great deal of nonsense about this theory, and my own experience is that one is directly conscious of using in daily life very little of what he studied in college. What he should aim at is the most thorough and accurate mental discipline that will train him to meet and solve all sorts of problems in which he can use neither the classics, nor the modern languages, nor yet his mathematics or sciences, but only the capacity which study of them all gives him to meet the requirements of active life.

I feel very strongly that the substitution of things

that are easy and that come naturally to a boy, and permitting him to do only the things he likes, are failing to educate him as he should be educated. The modern college graduate seems to me to have drifted far from the liberally educated man as he was defined fifty years ago. Very few of them seem fond of reading, seem trained to take responsibility or to be self-reliant and effective.

I am inclined to believe that the greatest merit of universal military training will be to repair much of the damage that the tendency of the past twenty-five years toward the optional and go-as-you-please systems adopted by numbers of our colleges has done to their graduates, and that there is great need of applying to the growing youth some training that will make them respect authority, assume responsibility, obey orders and play a man's part in life.

### Willard V. King

President of Columbia Trust Company, New York City

I should like to say that classical studies under teachers who are trying to give value seem to me of the highest importance. I do not say any higher than that of scientific studies, but fully as high. I happened to have an inspired teacher of Latin for four years at Columbia, and in Greek for two years; and it is very easy for me to trace to their influence a good deal of the facility I find in thinking as well as in writing. A man of tremendous genius may be able to carve regardless of his tools, but those who fall short of genius will succeed, largely, as they are expert with their tools. And aside from the mastery of language and the clarity of thought it produces, the incidental acquaintance with the philos-

ophies of Greece and Rome has been of more than literary value to me. My experience has been entirely in the Trust Company field, but that includes some railroading and a good deal of law in addition to banking. In all these, a knowledge of human nature is more important than of economic theory; I should say that banking is nine-tenths a study of human beings and only one-tenth science. You will see, therefore, that the study of the habits of thought of older peoples gives an excellent foundation for studying the minds of our own generation.

MORTIMER L. SCHIFF
Kuhn, Loeb & Co., New York City

It has always been my opinion that the study of classical languages is of great importance, both as a form of mental discipline and for its cultural value. While it may be said that excellent translations exist which enable the study of classical authors to be made without a knowledge of Latin and Greek, there is no question in my mind that English translations, no matter how excellently done, cannot convey the atmosphere and the feeling of the original. It must also not be overlooked that Latin is the basis of both French and Spanish, than which there are no more important modern languages at the present time, and it seems to me to be apparent that a well grounded knowledge of Latin must be of assistance and of value to the student of modern languages derived from it. I, for one, have regretted the tendency of modern secondary education to omit the study of classical languages or to minimize their importance. It might as readily be said that a study of

algebra and geometry is unnecessary, as it is only in rare instances that higher mathematics is of value to the student in after life. Nobody would deny, however, that the study of such mathematics is the best kind of mental training and discipline for the growing youth and the same in my opinion holds true as to the classical languages.

### James Loeb

Formerly of Kuhn, Loeb & Co., New York City

The great and legitimate aim of a business man is to make money. . . . But when a man has reached the goal of his desires, when he has made his pile and wants to enjoy it, then comes the time for the making of the real and only balance sheet. Then he must ask himself, "What are my resources, now that I have everything that money can buy? What are my spiritual and intellectual assets? How can I best spend what is left to me in life?" Lucky is the man whose early training fits him for something more than the golf field, or the tennis court, or for something better than the gaming table when his days of business activity are over. He can taste the gentler pleasures that await him in his study and by the blazing hearth fire. His Sophocles or his Homer or his Catullus will make this winter of life seem like its early spring when the greatest struggle he knew was with the elusive rules of grammar and syntax.

### Effingham B. Morris

President Girard Trust Company, Philadelphia

The answer to your question would seem to me somewhat dependent upon what the boy intends to do after leaving school.

If he goes to college, a school course might embrace Latin, Greek, history, mathematics and a modern language.

If he is obliged to go direct from school into mercantile business, then: Latin, history, mathematics and Spanish or French.

If he goes from school into a shop or any technical trade, then: Latin, mathematics, history and German or French.

Thorough knowledge of a few subjects as a foundation would seem preferable to a smattering of many.

### L. Scott Townsend

Security Trust and Safety Deposit Co., Wilmington, Del.

I have no hesitation in saying that I regard one instructed in the classics as specially qualified to take a prominent place in the business world, and I would earnestly recommend all young men preparing for any one of the many business callings not to fail to avail themselves of the opportunity to learn Latin and Greek.

### James B. Forgan

President First National Bank, Chicago

I am inclined to favor No. 4,[1] believing that both the classics and mathematics should form part of the boy's course in high school. I feel, however, that my opinion carries little weight as I have never been in sufficiently close touch with educational matters to enable me to form an accurate or very positive opinion. I presume that boys are supposed to be sufficiently grounded in the "three R's" before they enter high school; but my experience is that, if this is so, during their high school

[1] "No. 4" is the course requiring mathematics and classics.

term they must forget a good deal of what they previously learned. I would like to see high school graduates better grounded in their elementary education and able to write legibly, spell correctly and be more accurate and expert in simple arithmetical problems.

FRANCIS A. DEWICK

President of Boston Board of Underwriters, Boston

Latin assists in acquiring a good English vocabulary, and the power to express one's self forcefully. The function of the high school is not to give the pupil a definite something which he can market for a limited wage, but rather to develop his mind to the end that in it he may have an instrument capable of solving the problems of business and social life. Hence, by all means study Greek and Latin.

CHARLES W. SCOVEL

Life Insurance
Former President of The National Association of Life Underwriters, Pittsburgh

Long ago higher education was for the preacher, lawyer, doctor—no one else. In later years the cry was for technical schooling. . . . Indeed that idea became a fad. But the pendulum always swings back. The very growth of modern industries was bound to force a reaction. It brought a great, growing need for men—not experts, but just plain, broad gauge, clear thinking men; men of mental force, of personality, of initiative; men who can think for themselves, who can start things and keep them going; who can handle other men, including the scientific experts. This is the kind of man that business leaders are crying out for today.

The university answers that cry by its college courses. Yes, I mean Latin and Greek—that is, for every lad whose mental fibre is of highest grade, capable of reaching highest efficiency. Greek and Latin (taught by modern, scientific methods, of course; very different from the old dry-as-dust routine) will discipline and mature that high grade mental fibre better than any other study whatever—no matter what line of life work it is to tackle later on.

GEORGE D. MARKHAM
Insurance
St. Louis, Mo.

It was a poor selection when you requested me to give the reasons for a classical education, but perhaps I am a good witness because I had so little classical education. Small as it was, I have always felt that it gave me a better grip on language and power of expression, because I better understood the shades of meaning in words from knowing their origin. If the little classical education which I received could help at all in the most difficult of all accomplishments, the power to express one's self, then it seems to justify the time I spent on Greek and Latin.

WILLIAM B. MUNRO
Bureau of Research in Municipal Government, Boston

I have found Latin of enormous value. It gave me literary appreciation, a broadened English vocabulary, and enabled me to learn French and Spanish more readily. I would give more time in early years to Latin and Greek, not less.

### Arthur S. Perkins

In charge of the Commercial Course, Dorchester High School, Boston

Fortunately for the success of the experiment, the Headmaster of the Dorchester High School, Mr. James E. Thomas, earnest advocate of sound vocational studies that he is, has given the commercial Latin his most hearty support. Furthermore, Mr. W. L. Anderson, head of the Commercial Department, who, by the way, was the first to suggest to me the idea of such a course, not only knows from personal experience the value of Latin to commercial education, but from a wide observation extending over many years appreciates the seriousness of the handicap in the competition of life placed upon those who have never studied the Latin language. Many, on general principles, would admit, I think, the importance of such a course to stenographers; but we contend that, even to a greater degree, salesmen and business men, generally, need the help to be derived from Latin.

### William F. Murray

Postmaster, Boston

I have found Latin of practical value, in word uses, especially as to derivation.

### Henry P. Kendall

President of Plimpton Press, Norwood, Mass.

The study of Latin gave me my first conception of the fundamentals of the English language and the root values of words. I feel that I should never have gotten this without the study of Latin. I have found Latin of great practical value from the greater knowledge of the

meanings of words and the associations, as well as the root meanings, which come from the Latin language. I have also found it of more specific value in scientific terms, particularly in the natural sciences, which are built almost wholly on Greek and Latin roots.

CHARLES A. MUNN

Publisher
*Scientific American*, New York City

I regret to say that as far as I am concerned my memory of Latin and Greek has faded away into a remote past. Nevertheless, I have never for a moment regretted the time that I spent upon the classics when in college, and I believe that the experience I derived from these courses has been of great service to me in after life.

I think that modern languages are, of course, of great practical value, provided they can be mastered in a proper manner in a school or college course. It is possible that this may be done, but I have never seen it done satisfactorily except for purposes of reading or study.

S. S. MCCLURE

Publisher
New York City

Four-fifths of the students at Knox College then took the old fashioned classical course, in which Greek was obligatory. This course still seems to me the soundest preparation a young man can have, and I still feel that Greek was the most important of my studies. During the years that he reads and studies Greek a boy gets certain standards that he uses all the rest of his life, long after he has forgotten grammar and vocabulary.

GEORGE HAVEN PUTNAM
Publisher
New York City

The word that I am in a position to give in regard to the "value" of classical studies comes from one who has not been able, from personal experience, to realize this value. It is a statement of one who has been called upon through half a century to do literary work and who had been prevented by factors not within his own control from securing the knowledge of Greek and Latin and had, therefore, not enjoyed the advantage of familiarity, at least in the original text, with the works of the great writers of antiquity.

It is my belief, from the difficulties I have myself experienced in securing an adequate understanding of the languages and the literature of later times, that an adequate knowledge, first of the language and then of the literature of both the Greek and the Roman people, is essential for the intellectual equipment of any thoughtful person who desires to study the great intellectual movements of humanity and who aims to secure a proper understanding of the foundations, the causations and the inspirations from which have been produced the literatures of the world.

In the case of a student whose time has been limited and who has had the necessity of choosing between devoting study to Latin or to Greek, my own judgment would be in favor of the selection of Latin.

I may admit from my knowledge of the literatures of the two countries, secured through the reading of English versions, that the literature of Greece is much the more important of the two. It is Hellenism that

has contributed the inspiration not only for the Latin literature which immediately followed, but for the thought of the centuries which succeeded the close of the Roman State. Latin has, however, interwoven itself more closely, first, with the language and later through the all important factor of Roman law, with the law and with the literature of the nations that succeeded the Roman Empire.

It is difficult to imagine a man becoming a master of expression in English, in French, in Spanish or in Italian without a knowledge of the Latin which forms so large a factor in all four languages. The Greek has made the larger contribution to the thought of the world, but it is to the Roman that the world owes, first, its understanding of law and later the theory of the organization of the state.

The contribution of Rome, as far as it had to do with law and with institutions, can be studied, with a fair measure of advantage, in translations from the Roman text. But the service to be rendered to the knowledge of the shades and meaning of words in the languages of today can be secured adequately only with a knowledge of the structure, of the spirit and of the literature, of the Latin tongue. I judge that the loss to the spirit of the original in the attempt to secure from English versions an appreciation of the actual character of the literature of Greece must be very much greater than is the loss in reading in the English versions the works of the writers of Rome. If we accept the first contention that it fell to Greece to make the largest contribution that the world has known to the thought of humanity, and if it be true that the full spirit and inventiveness of the Greek thinker can be secured only by taking his word

in the original, then the loss to the twentieth century and to any succeeding centuries, in lessening the knowledge of the Greek language and the facility of reading Greek text, must be serious.

Speaking, therefore, as an outsider who has some realization of what he has lost, I should give my vote for the retention of Greek for all students whose mentality is sufficiently developed to take in the larger thought, philosophical, poetic or literary, of the world.

I should give my vote for the retention of Latin for the instruction of all students, boys or girls, who have any aim beyond that of manual labor and of success in controlling material things.

J. T. MENTZER

Atkinson, Mentzer & Co., Publishers, Chicago

1. Men who are leaders in professional and business life are trained observers. Many of our most successful business men say that their success is due to their having cultivated the power to observe quickly and correctly. The study of Latin and Greek develops an efficient power to observe and compare.

2. Having the proper foundation in Latin, one can very readily acquire the modern Romance languages. From a commercial point of view, this is an exceedingly important reason for studying Latin.

3. The fact that our own tongue is half Latin justifies the subject being taught in our schools.

4. From the point of view of ethics, the study of the classics is to be encouraged; the study of the humanities of Greek and Latin will give a wider vision to the spirit of men.

## 8. UNIVERSITIES AND COLLEGES

### Abbott Lawrence Lowell

President of Harvard University

For the core of secondary instruction as a preparation for general education nothing seems to me to have yet been found so effective as the classics; nor is the familiarity with the literature of Greece and Rome without great value to the thoughtful citizen of the present day. The problems, social, political and international, that forced themselves upon antiquity are on the whole nearer to the ones that we face, and still more shall face, than are those of any intervening period. The classics in the colleges and universities ought, I believe, to be taught far less as they have been in past years from the point of view of philology, and more from the point of view of humanity, that is, of the thoughts of men as individuals and as communities, especially in their bearing upon present day civilization. Such a change is taking place, but it ought to be pushed much farther. If this were done, we might witness a revival of the classics as a living force in education, and in the life of educated men.

### Arthur Twining Hadley

President of Yale University

It has been on the whole my experience that men trained in the classics did better work in law, in economics and in most lines of writing which require careful analysis than men who had been trained in other lines.

They had acquired a habit of looking at words atten-

tively; of finding out the meaning of difficult things for themselves instead of expecting other people to tell them; and of noting the difference between subject and predicate, between things assumed and things stated.

I cannot say positively that this difference is due to an inherent superiority of the Greek and Latin classics over other subjects available for our use. It may be due to a difference in methods of teaching. It may be due to the fact that the boys who study classics have been brought up in the habit of taking books seriously and being careful in the use of language. But while I am not sure about the cause, I feel quite sure about the facts.

ANSON PHELPS STOKES
Secretary of Yale University

I have duly received your communication requesting an expression of opinion as to the value of classical studies. In reply I beg to say that I am exceedingly glad that I studied the classics and only regret that I did not master them more completely. I did not go far enough into Latin to have Latin literature in the original mean much to me, but the better understanding of the English language which has come through a knowledge of Latin has proven invaluable. I have also found Greek of vital importance in connection with my ministerial studies. To be unable to read the New Testament in Greek would be to lose both a pleasure and an inspiration.

In general I feel that the study of the classics tends to encourage idealism, a fondness for literature and a capacity for apt expression, as well as providing excel-

lent mental discipline and a certain background of culture which is of much importance.

I am glad that a knowledge of Greek and Latin is no longer considered an essential qualification for an educated man in all professions, because the old standards which insisted upon this seem to me rather snobbish for a modern democracy, but I think that there is much to be said in favor of keeping at our representative historic universities and colleges at least one degree, the Bachelor of Arts, with some classical requirement, and I feel that our civilization would lose much if the classics were put into the background. By all means let us experiment with new subjects of study and new methods of teaching, but not to the exclusion of trying to find the real values—both old and new—in subjects which have proven of worth to many generations.

### W. H. P. Faunce

President of Brown University

Latin still constitutes the most thoroughly ordered and synthesized body of knowledge in the modern world, and hence the best of all known studies for building an ordered mind.

### Alexander Meiklejohn

President of Amherst College

It is one of my ambitions that Amherst should do her part in realizing the possibilities of classical learning. I am sure that in our liberal colleges no single aim is more important than that of making the philosophy, literature, art and history of Greece and Rome influential in the experience of the American people.

### George D. Olds

Dean of Amherst College

My belief in the classics is firmly grounded. It is difficult, however, to give a brief statement of the reasons for the faith that is in me. Indeed, I have never seen a thoroughly satisfactory formulation of the reasons. My appeal is (as the good churchman often says of religion and prayer) to the experience of the race, and there is ample evidence that the race, or those members of it who have pursued Latin and Greek with earnestness of purpose and for a sufficiently long time, are from the standpoint of breadth of vision, insight and intellectual power the better for their labors. Disraeli says somewhere that with the passage of the Reform Bill in 1832 the Horatian period of English parliamentary eloquence was at an end, meaning, of course, that the newly enfranchised middle class electorate would be intolerant of classical scholarship; but the surprising fact remains that every English Prime Minister from 1832 to the days of Arthur Balfour was a graduate of either Oxford, Cambridge or Edinburgh, with the sole exception of Disraeli himself.

### Harry Augustus Garfield

President of Williams College

I am deeply interested in the preservation of the classics in our colleges of liberal training. After all has been said against the teaching of Latin and Greek in our schools and colleges, it remains true that no adequate substitutes have yet been found, if the aim is a liberal education.

It ought not to require long argument to convince

practical men that the average instructor will teach with greatest success the subject in which the method of teaching is most exactly and widely understood and practiced, and that the language which yields the richest return in literature and liberal learning will best repay the prolonged study and contemplation of scholars.

Of course classics have no place in a get knowledge quick programme, frequently confused with the long process of a liberal education; nor would I attempt to convince those who by temperament or experience are better fitted for the newer fields of intellectual activity, men of the intellectual pioneer type whose powers might never reach full strength in what for them would be the confining walls of an institution of liberal learning.

RICHARD C. MACLAURIN

President of the Massachusetts Institute of Technology

When the element of compulsion is removed from the study of the classics, the opposition of men of science and men of affairs for the most part disappears. Generally what these men object to is the forcing of everyone to study something in which many have no interest and for which more have no aptitude. Some of the objectors are irritated by the extravagant claims made for the classics as if Latin and Greek were necessarily synonymous with humanity, just as some are annoyed by the loud boasting of the champions of science. We may hope that little harm will be done by the extremists who in education as elsewhere are less effective than most people suppose. As to engineering, in which I am specially interested, I hear from men of eminence in that profession a constant demand for greater lucidity and precision of expression, a greater insight into hu-

man needs and limitations, and a less provincial outlook on the world. Under the guidance of good teachers the study of the classics will surely be helpful toward these great ends.

NICHOLAS MURRAY BUTLER

President of Columbia University

For President Butler's letter see page 41.

STATEMENT OF FIFTY PROFESSORS OF CORNELL UNIVERSITY

We the undersigned professors (or one time professors) of Cornell University should prefer as students of our respective subjects those who have included both Greek and Latin among their preparatory studies rather than those who have neglected those studies in favor of modern languages or of our own respective subjects.—*Statement signed by fifty Professors of Mathematics, Mechanical Engineering, Civil Engineering, Electrical Engineering, Economics, Botany, Zoology, Psychology, Modern Languages, Philosophy, etc., in April, 1911.*

RUSH RHEES

President of the University of Rochester

So far as our experience has gone, we have not discovered a means for the development of intellectual maturity comparable with the study of Latin and Greek.

JAMES R. DAY

Chancellor of Syracuse University

As a time saver and as a sure road to the topmost round of all things that require strong, critical and

clear thinking, I would urge the patient and untiring study of the Greek and Latin languages.

LYMAN P. POWELL
President of Hobart College, Geneva, New York

I am glad to state with the utmost earnestness my conviction concerning the importance of the study of the classics.

I singled this out for special consideration in my installation address when I came here four years ago, and we have had a considerable proportion of students, thanks to the attractiveness of the teaching of the subject here, in Greek and Latin.

It seems to me that the classics will retain their value for education as long as the aim is to make men rather than produce machines, to brighten and enrich the whole of life rather than simply make a living, to implant ideas and instill ideals as well as to impart knowledge and train for technical service, to keep in vital contact with all that is best in the past as well as meet the practical demands of the present.

It is a commonplace to say that language is the instrument of thought and literature, its highest expression, and therefore must retain its proper place in the curriculum of a truly cultural college. There is no comprehensive knowledge of literature possible without acquaintance with the classics. No one can understand the English language without some knowledge of Latin from which it derives much, and certainly no real knowledge of Latin literature is possible to one ignorant of the Greek.

Finally a civilization which in this time more than in any other must call itself Christian has to draw on its

sources which are accessible only in Greek, without the study of which access to these sources is difficult if not impossible.

### JOHN GRIER HIBBEN

President of Princeton University

I am most thoroughly in favor of classical studies, and my opinion is based not only upon my own experience but upon the general history of education.

For President Hibben's address see page 37.

### EDGAR F. SMITH

Provost of the University of Pennsylvania

You were good enough to write me a note in regard to the value of classical studies. I don't know how I can ever adequately present my views in regard to the value of such subjects. I believe that the training I received in Latin and Greek, the discipline that was mine, the great fields that were opened up to me as a result of following out those lines of study have meant everything to me. I think the problems I have solved in pure chemistry were made easier; and, indeed, the line of solution of these problems was determined as a consequence of the broad training which comes to one who follows the classical subjects through their various ramifications.

In later years of my life I have given a great deal of attention to historical subjects and I have found my early training to be of the greatest assistance to me. I am constantly falling back on my Latin and Greek.

### Josiah H. Penniman

Vice-Provost of the University of Pennsylvania

A knowledge of the Greek and Latin classics is one of the means of understanding the English language, and is essential to an understanding of our intellectual and spiritual heritage, without which our knowledge of the meaning of the present is necessarily incomplete. Both of these ends are of fundamental importance.

A knowledge of Latin and Greek and of their literatures is valuable not only as a means but also as an end. It is not possible to know their literatures intimately without knowing the languages, and the content of the literatures is of such value that one who is unfamiliar with it has never come into possession of an important portion of the world's treasure.

### Henry S. Drinker

President of Lehigh University, South Bethlehem, Pa.

Of course, we are in sympathy with you at Lehigh in emphasizing the importance of classical studies as an essential element, not only in liberal education as commonly understood, but as a necessary prerequisite to the education of the engineer, and I am certain that I voice the opinion of the great majority of our engineers of today in saying that we believe a broad cultural training an essential requisite in the education of the modern engineer. Let me give you a concrete instance.

We have all heard of John Fritz, the father of the steel industry in America, affectionately known among the mining and metallurgical engineers of the country as "Uncle" John Fritz. I knew Mr. Fritz intimately. It was he who, as engineer, went to France and to Eng-

land in 1887, and brought home the French and English processes for the manufacture of armor plate, and who encouraged at Bethlehem the manufacturing of armor plate and high power guns. Mr. Fritz, while a great engineer, was an absolutely self-educated man. He never attended college, but he was a man of wide reading and information, and yet he was what might be called typically a "practical" engineer. I shall never forget that one day he said to me, "Dr. Drinker, if I had a son to be educated as an engineer, I would see to it first of all that he gained some knowledge of Latin and Greek."

### Isaac Sharpless

**Recently President of Haverford College**

It seems to me that the advantage of Latin and Greek consists in their ability to make students do serious, earnest, thoughtful work every day that they prepare the lesson. This sort of training is what is needed not merely for scholarly people but for business men and every one else. It is true that the training may be obtained by other subjects, and that the classics are not the only means of securing it, but they are the most certain means that I know of. My observation of results is that classical scholars succeed because they have it and others fail sometimes because they do not have it.

### W. W. Comfort

**President-Elect of Haverford College**

The boy who has been well trained in even one of the classics is seldom slipshod in his methods of study. Many who have not been so trained are worse than slipshod; they are unqualifiedly illiterate.

JOHN H. MACCRACKEN
President of Lafayette College

My training in Latin extended over ten years, my training in Greek over eight years, and I have had no occasion to regret the time thus employed. The disciplinary value of these studies I can more readily recognize and measure than the cultural value. The formation of taste and ideals "cometh not with observation." On the other hand such disciplinary by-products as closeness of observation, nicety of discrimination, sagacity in selecting the significant element in a complicated structure, are more readily detected.

The study of classics adds unity to our knowledge. This is peculiarly true in an age dominated by the idea of evolution, an age which places perhaps undue emphasis on the pedigree of knowledge. It tends to correct the subjective attitude of contemporary thought by the objective attitude of a simpler age. Dead languages, just because they are dead, serve as useful abstract terms in the working out of problems in the social sciences, just as the abstract terms of other sciences, electrons, atoms, and all the family of $x$, $y$, $z$s have done much to build up knowledge in the fields of natural science.

Classical studies are not for everyone. No one needs a telescope to enjoy the beauty of the starry heavens, or to rise with the sun to labor, or retire with the sun to rest, but classical studies are to the student of man, his thoughts and passions, a part of those larger lenses which reveal unguessed worlds, and make more intelligible even the workaday sun.

S. B. McCormick
Chancellor of the University of Pittsburgh

I am as thoroughly convinced as I ever have been of the value of classical studies. I wish conditions were such as to permit all students who enter college to receive a thorough training in the Greek and Latin languages. These are the doorways through which students enter into treasures of untold cultural wealth and except as they master these languages these doorways are forever closed to them.

William H. Crawford
President of Allegheny College, Meadville, Pa.

In response to your request permit me to say that I believe in the classics. They have a unique place in literature. I have always felt that the requirements for a complete education must include a thorough appreciation of language—its structure and its interpretation—and must above all things produce a habit of differentiating, analyzing and classifying. These educational requirements are met, I believe, in the study of the classical languages in a way for which there is no complete substitute. When combined with the newer subjects of the modern curriculum, as I understand nearly all defenders of the classics advocate, they produce what I am confident is the finest type of training our colleges can provide.

Statement sent by Bishop Shahan, Rector,
in behalf of the Faculty of The Catholic University of America
Washington, D. C.

It is not necessary, for our present purpose, to repeat the well known arguments in favor of the classics; and

it certainly would not be easy to single out as a new claim any result of classical education, any grace or utility, which has not already been set forth by competent writers on both sides of the Atlantic. It may, however, be profitable to emphasize one or two points which are sometimes lost to view as the discussion thickens, or are deliberately obscured by the opponents of the classics.

The first is that the issue no longer lies between the educational value of the classics and the educational value of scientific studies, but rather between different meanings of education itself. It is admitted that the study of the classics does educate, and we certainly admit as much for scientific studies. But when we have shown conclusively that Latin and Greek have a real educative value, we are confronted by the further question—Is that the sort of education which is needed? Having assumed all along that mental culture, acquaintance with the origins, contact with great thinkers, knowledge of the sources whence have come our English language and literature, breadth of interest and heightened power of expression—in a word, that the humanization of man is the end for which we educate, we may be told that we are on the wrong track. Such, indeed, may be *our* end, but it is not the end of education. And thereupon we may be reminded that the very efficiency of the classics in achieving their peculiar results is one more reason for setting them aside. So, inevitably, the discussion widens out, and the force of each argument comes to depend not on its source but on the ultimate aim for which we educate.

Then, in the second place, our contention is far less radical than that of our opponents. While they are

bent on extermination, giving no quarter to the classics, we insist on proportion—on such a cooperation of all the educational values as will secure the best result. This much, at least, we have learned from the *artes liberales;* and by the very profession of our faith in them we are constrained to make place, and even comfort, for the sciences as well as for the classics. Otherwise, we would have missed, as our opponents generally do miss, the basic element of beauty and life which the Greeks revealed to mankind.

Third, there is nothing to hinder any one from selecting his own educational ideal and determining the respective share of the classics and of science in seeking its realization. We, for instance, might look beyond the present day and lay our plans for the year 2000—just as we might, absolutely speaking, cast out electivism with all its works and pomps, and restore the Trivium and Quadrivium. But in our actual circumstances neither of these plans would be the part of wisdom. It is for the youth of today that we must make provision. It is with the present condition of the world, and with the conditions that are to follow in the near future, that we must reckon. Instead of dwelling on the history of education, whose verdict is all in our favor, or appealing to psychology which is the counsel in our defence, we can, as the scientists demand, look squarely at the facts.

The conflict in which the world, ourselves included, is now engaged, forces upon us these two questions: How are we to wage war? Why should we wage it? This is not the logical order of the questions; but it is the more convenient, since it is easy to answer the first, and the scientists will be quick with their answer. In fact, the answer is already given in the methods which the war-

ring nations have devised. The war, evidently, is to be conducted by the use of all those agencies which science places at our disposal—of all the contrivances for killing that human ingenuity suggests. The soldier at the front is simply the instrument for the mathematician, the physicist, the chemist and the engineer; and the slaughter is great because modern science is in the service of death. Nor have we, in America, any other hope of success. If we are to win, we must have somewhat more of science or a larger supply of its products than our enemies can afford. In the technical sense, of course, we were not prepared; and our only assurance now lies in the fact that we had provided at least remotely for such an emergency by giving science so considerable a place in our education. Suppose for a moment that it had been excluded!

Then turn to the other question—why are we at war? —and seek an answer for it in any or all of the sciences. Get a formula, or an equation, or a principle of mechanics that will prove the righteousness of our cause. Is there a compound known to chemistry in which justice is the chief ingredient? Is there a force yet discovered by physics that shrinks from treachery or recoils from cruelty or protests against murder? As far as possible, we shall use the same agencies of destruction as our enemies are using, or others more powerful. We shall use their armament and their ships as fast as we can seize them—for the use will be the same in our hands as it now is in theirs. But will we adopt their motives and receive for our own their gospel of hate? If not, then it will be simply owing to the fact that our education has included other things than scientific fact and law. Whether in the school room or outside, whether from

formal texts or from less technical tradition, we have learned that there are such things as right and social obligation and the duty which one nation owes to another. We have yet in our mental composition some trace of the *humanitas* which the older learning instilled. We are consistent in fighting for the rights of man because the knowledge of man in his spiritual activity is of greater value than the knowledge of matter and force.

We have told the world in explicit terms that our object is to secure the liberty of mankind, that we are prepared to pay the price in blood and treasure and sorrow. But this implies that we have thought out the meaning of liberty, that we know on what foundations it must rest and to what dangers it may be exposed. Have we learned this by studying the physical world with its immutable laws? If knowledge were confined to the mechanical sequence of cause and effect in which physical science delights, what would it profit to talk, or even to think, of freedom for ourselves and for the rest of mankind? The ever increasing contrast between nature as a system of rigidly determined events and humanity demanding a larger freedom would not have been brought to view had classical culture been completely excluded from modern education.

Let it not be forgotten that liberty means more than the right to live, to go our way without let or hindrance, to be owners of land and makers of homes. It means freedom of inquiry and research, the right to seek out the ways of nature and lay bare the hidden forces of the world by using our senses and our intelligence to the best effect. And this precisely is the freedom that science demands. It is because of this freedom that scientific investigation has been so fruitful and has be-

come so powerful an agent alike for preservation and for destruction. But if an attempt were made to restrict its scope or to prescribe limits for its inquiries, could science out of its own principles, or content, or methods, supply a single argument in behalf of its freedom? It would turn at once to those conceptions of right, of liberty and of progress which classical education has preserved and transmitted. It would become, for the moment and for its own salvation, more humanistic than the humanists themselves. And it would do so for the very obvious reason that the scientist, like everybody else, is born into this world, not as a formula or as a machine, but as a man.

It may, of course, be objected that having inherited our notions of right and freedom, with all the rest that the past could give us, we have no longer any need of history or of the classical tongues, the vehicles of transmission. We can discard the tree and live by its fruit. Such a view is possible. But then it would be equally reasonable and quite as practical for the aims of education to declare that so long as we know the effects we need not concern ourselves about the causes, or that provided we get the answer, as the school boy would say, we can dispense with the principle and process.

So it turns out that the plea for the classics is in reality a plea for science itself. For, after all, science is only one form of man's striving toward the truth with a divinely given impulse. Its light is not for itself alone, and surely not for the influencing of the physical world, but rather for the guidance of man in the attainment of his destiny, for his defence in the struggle for freedom and his progress in the ways of peace.

### H. Tucker Graham

President of Hampden-Sidney College, Virginia

I feel that the continuance of the classics as an essential element in the curriculum of every college of liberal arts is of the highest importance. While a man may secure a scientific education without a knowledge of the classics, it seems to me to be a contradiction in terms to claim that one is liberally educated who has never come into personal touch with the great masters of ancient thought—"those dread and sceptred sovereigns, who still rule our spirits from their urns." Nor do I believe that a man can become an accurate and accomplished English scholar without at least a reasonable acquaintance with either Greek or Latin, and preferably both of these languages.

Any movement, therefore, which tends to foster these studies and which aims to give to the classics their rightful value in the eyes of an all too utilitarian public commands my hearty sympathy and cooperation.

### Charles F. Thwing

President of Western Reserve University, Cleveland, Ohio

To me one of the chief values of the study of the classics is founded in the contribution which the Latin and the Greek races have made to modern civilization. Four forces or conditions there are which have directly contributed to the best part of modern life, the Greek, the Roman, the Hebrew and the Anglo-Saxon. The Greek in its teaching of beauty, proportion, wisdom; the Roman in its offering of government and of law; the Hebrew in its sacred books and personalities; the Anglo-Saxon in its example of liberty, have given

fundamental elements and relations to our western civilization. A literature, therefore, which represents these primary conceptions of the Greek people or the Roman cannot fail to be of the greatest worth.

### Henry C. King

President of Oberlin College

Perhaps I cannot do better, in the way of answer to your request, than to quote a few sentences from a recent address of mine, on "What the College Stands For": "The college owes to its students some *genetic understanding of the civilization in which they live.* Our western civilization is in the direct line of intellectual, moral and religious descent from ancient Greece and Rome and Judea. Our roots in philosophy and literature and art go back to Greece (and in less degree to Rome), in law to Rome, and in religion to Judea. We shall not understand ourselves if we forget them. The college may be held, therefore, as bound to introduce its students to the significance of the great lines of inheritance of western civilization—Greek, Roman and Jewish."

### Charles W. Dabney

President of the University of Cincinnati

It gives me pleasure to add my testimony to the value of the classics in modern education. Not that both or either of the classic languages should be required of all the youth. In a democratic state like ours, [illegible] preservation depends on the education of the whole people, the indispensable studies would not [illegible] and English. But for those whose aim for the [illegible] and their children is leadership or the c[illegible]

leaders in their chosen profession and in educated society, more than the essentials is needed. The man who is to enjoy the respect and honor of the community must have in him more than the minimum requirements of his trade, more than that smattering of general information that will keep him from being called an ignoramus. It is reserve of power that at all times inspires confidence and in the day of need brings results. This reserve of power the pursuit of the classics, it seems to me, gives in a preeminent degree. From the pursuit of the classics come, probably as from no other studies, concentration, discrimination, strengthened memory, orderly habit, exact expression, power to conquer difficulty, above all the feeling for getting things right, and at the same time a knowledge is gained of the sources of our civilization, and acquaintance with those primal men whose spirit has permeated the ages and still lives productive today. In a word, on the one side comes power to think; on the other, knowledge of the basic material with which our thinking is concerned. And to that is added the purification and elevation of spirit that follows the contemplation of beauty, the ideal of how to live that is beyond the knowledge of how to make a living.

A. T. Belknap

Acting President of Franklin College, Franklin, Indiana

In addition to what is commonly said concerning the disciplinary and cultural value of classical studies, it appears to me that somehow the men who have a sound classical training manage to secure a higher type of efficiency than other men. The longer I observe college students and college graduates, the more I am satisfied

it is not safe for us to neglect the higher spiritual values that come from this work. This higher spiritual efficiency we need today as never before in the history of the country.

### Harry Burns Hutchins

Former Dean of the Law School
President of the University of Michigan

A distinguished English judge has said that a case clearly stated is half won, and there is certainly truth in the suggestion. One of the difficult tasks of the law teacher is to get from the students a clear, concise and definite statement of the facts of the case that is to form the basis of the discussion, and in this part of the work the noticeable superiority of the classically trained student is apparent.

### Edmund J. James

President of the University of Illinois

I am especially pleased to have an opportunity to add my small testimony to the value of classical study.

I have of late years with an increasing interest attempted to canvass the influences of different elements in my education upon my qualifications for the particular work which has fallen to my lot during the last thirty-five years.

I think I would prefer to have dropped out of my life and thought and work any other element in my education rather than to lose the things which the study of Greek brought to me.

Of course I should except English with the things that go with that, but on the whole, aside from English,

### S. B. McCormick

Chancellor of the University of Pittsburgh

I am as thoroughly convinced as I ever have been of the value of classical studies. I wish conditions were such as to permit all students who enter college to receive a thorough training in the Greek and Latin languages. These are the doorways through which students enter into treasures of untold cultural wealth and except as they master these languages these doorways are forever closed to them.

### William H. Crawford

President of Allegheny College, Meadville, Pa.

In response to your request permit me to say that I believe in the classics. They have a unique place in literature. I have always felt that the requirements for a complete education must include a thorough appreciation of language—its structure and its interpretation—and must above all things produce a habit of differentiating, analyzing and classifying. These educational requirements are met, I believe, in the study of the classical languages in a way for which there is no complete substitute. When combined with the newer subjects of the modern curriculum, as I understand nearly all defenders of the classics advocate, they produce what I am confident is the finest type of training our colleges can provide.

### Statement sent by Bishop Shahan, Rector,

in behalf of the Faculty of The Catholic University of America Washington, D. C.

It is not necessary, for our present purpose, to repeat the well known arguments in favor of the classics; and

it certainly would not be easy to single out as a new claim any result of classical education, any grace or utility, which has not already been set forth by competent writers on both sides of the Atlantic. It may, however, be profitable to emphasize one or two points which are sometimes lost to view as the discussion thickens, or are deliberately obscured by the opponents of the classics.

The first is that the issue no longer lies between the educational value of the classics and the educational value of scientific studies, but rather between different meanings of education itself. It is admitted that the study of the classics does educate, and we certainly admit as much for scientific studies. But when we have shown conclusively that Latin and Greek have a real educative value, we are confronted by the further question—Is that the sort of education which is needed? Having assumed all along that mental culture, acquaintance with the origins, contact with great thinkers, knowledge of the sources whence have come our English language and literature, breadth of interest and heightened power of expression—in a word, that the humanization of man is the end for which we educate, we may be told that we are on the wrong track. Such, indeed, may be *our* end, but it is not the end of education. And thereupon we may be reminded that the very efficiency of the classics in achieving their peculiar results is one more reason for setting them aside. So, inevitably, the discussion widens out, and the force of each argument comes to depend not on its source but on the ultimate aim for which we educate.

Then, in the second place, our contention is far less radical than that of our opponents. While they are

bent on extermination, giving no quarter to the classics, we insist on proportion—on such a cooperation of all the educational values as will secure the best result. This much, at least, we have learned from the *artes liberales;* and by the very profession of our faith in them we are constrained to make place, and even comfort, for the sciences as well as for the classics. Otherwise, we would have missed, as our opponents generally do miss, the basic element of beauty and life which the Greeks revealed to mankind.

Third, there is nothing to hinder any one from selecting his own educational idcal and determining the respective share of the classics and of science in seeking its realization. We, for instance, might look beyond the present day and lay our plans for the year 2000—just as we might, absolutely speaking, cast out electivism with all its works and pomps, and restore the Trivium and Quadrivium. But in our actual circumstances neither of these plans would be the part of wisdom. It is for the youth of today that we must make provision. It is with the present condition of the world, and with the conditions that are to follow in the near future, that we must reckon. Instead of dwelling on the history of education, whose verdict is all in our favor, or appealing to psychology which is the counsel in our defence, we can, as the scientists demand, look squarely at the facts.

The conflict in which the world, ourselves included, is now engaged, forces upon us these two questions: How are we to wage war? Why should we wage it? This is not the logical order of the questions; but it is the more convenient, since it is easy to answer the first, and the scientists will be quick with their answer. In fact, the answer is already given in the methods which the war-

ring nations have devised. The war, evidently, is to be conducted by the use of all those agencies which science places at our disposal—of all the contrivances for killing that human ingenuity suggests. The soldier at the front is simply the instrument for the mathematician, the physicist, the chemist and the engineer; and the slaughter is great because modern science is in the service of death. Nor have we, in America, any other hope of success. If we are to win, we must have somewhat more of science or a larger supply of its products than our enemies can afford. In the technical sense, of course, we were not prepared; and our only assurance now lies in the fact that we had provided at least remotely for such an emergency by giving science so considerable a place in our education. Suppose for a moment that it had been excluded!

Then turn to the other question—why are we at war? —and seek an answer for it in any or all of the sciences. Get a formula, or an equation, or a principle of mechanics that will prove the righteousness of our cause. Is there a compound known to chemistry in which justice is the chief ingredient? Is there a force yet discovered by physics that shrinks from treachery or recoils from cruelty or protests against murder? As far as possible, we shall use the same agencies of destruction as our enemies are using, or others more powerful. We shall use their armament and their ships as fast as we can seize them—for the use will be the same in our hands as it now is in theirs. But will we adopt their motives and receive for our own their gospel of hate? If not, then it will be simply owing to the fact that our education has included other things than scientific fact and law. Whether in the school room or outside, whether from

formal texts or from less technical tradition, we have learned that there are such things as right and social obligation and the duty which one nation owes to another. We have yet in our mental composition some trace of the *humanitas* which the older learning instilled. We are consistent in fighting for the rights of man because the knowledge of man in his spiritual activity is of greater value than the knowledge of matter and force.

We have told the world in explicit terms that our object is to secure the liberty of mankind, that we are prepared to pay the price in blood and treasure and sorrow. But this implies that we have thought out the meaning of liberty, that we know on what foundations it must rest and to what dangers it may be exposed. Have we learned this by studying the physical world with its immutable laws? If knowledge were confined to the mechanical sequence of cause and effect in which physical science delights, what would it profit to talk, or even to think, of freedom for ourselves and for the rest of mankind? The ever increasing contrast between nature as a system of rigidly determined events and humanity demanding a larger freedom would not have been brought to view had classical culture been completely excluded from modern education.

Let it not be forgotten that liberty means more than the right to live, to go our way without let or hindrance, to be owners of land and makers of homes. It means freedom of inquiry and research, the right to seek out the ways of nature and lay bare the hidden forces of the world by using our senses and our intelligence to the best effect. And this precisely is the freedom that science demands. It is because of this freedom that scientific investigation has been so fruitful and has be-

come so powerful an agent alike for preservation and for destruction. But if an attempt were made to restrict its scope or to prescribe limits for its inquiries, could science out of its own principles, or content, or methods, supply a single argument in behalf of its freedom? It would turn at once to those conceptions of right, of liberty and of progress which classical education has preserved and transmitted. It would become, for the moment and for its own salvation, more humanistic than the humanists themselves. And it would do so for the very obvious reason that the scientist, like everybody else, is born into this world, not as a formula or as a machine, but as a man.

It may, of course, be objected that having inherited our notions of right and freedom, with all the rest that the past could give us, we have no longer any need of history or of the classical tongues, the vehicles of transmission. We can discard the tree and live by its fruit. Such a view is possible. But then it would be equally reasonable and quite as practical for the aims of education to declare that so long as we know the effects we need not concern ourselves about the causes, or that provided we get the answer, as the school boy would say, we can dispense with the principle and process.

So it turns out that the plea for the classics is in reality a plea for science itself. For, after all, science is only one form of man's striving toward the truth with a divinely given impulse. Its light is not for itself alone, and surely not for the influencing of the physical world, but rather for the guidance of man in the attainment of his destiny, for his defence in the struggle for freedom and his progress in the ways of peace.

H. TUCKER GRAHAM

President of Hampden-Sidney College, Virginia

I feel that the continuance of the classics as an essential element in the curriculum of every college of liberal arts is of the highest importance. While a man may secure a scientific education without a knowledge of the classics, it seems to me to be a contradiction in terms to claim that one is liberally educated who has never come into personal touch with the great masters of ancient thought—"those dread and sceptred sovereigns, who still rule our spirits from their urns." Nor do I believe that a man can become an accurate and accomplished English scholar without at least a reasonable acquaintance with either Greek or Latin, and preferably both of these languages.

Any movement, therefore, which tends to foster these studies and which aims to give to the classics their rightful value in the eyes of an all too utilitarian public commands my hearty sympathy and cooperation.

CHARLES F. THWING

President of Western Reserve University, Cleveland, Ohio

To me one of the chief values of the study of the classics is founded in the contribution which the Latin and the Greek races have made to modern civilization. Four forces or conditions there are which have directly contributed to the best part of modern life, the Greek, the Roman, the Hebrew and the Anglo-Saxon. The Greek in its teaching of beauty, proportion, wisdom; the Roman in its offering of government and of law; the Hebrew in its sacred books and personalities; the Anglo-Saxon in its example of liberty, have given

fundamental elements and relations to our western civilization. A literature, therefore, which represents these primary conceptions of the Greek people or the Roman cannot fail to be of the greatest worth.

### Henry C. King

President of Oberlin College

Perhaps I cannot do better, in the way of answer to your request, than to quote a few sentences from a recent address of mine, on "What the College Stands For": "The college owes to its students some *genetic understanding of the civilization in which they live.* Our western civilization is in the direct line of intellectual, moral and religious descent from ancient Greece and Rome and Judea. Our roots in philosophy and literature and art go back to Greece (and in less degree to Rome), in law to Rome, and in religion to Judea. We shall not understand ourselves if we forget them. The college may be held, therefore, as bound to introduce its students to the significance of the great lines of inheritance of western civilization—Greek, Roman and Jewish."

### Charles W. Dabney

President of the University of Cincinnati

It gives me pleasure to add my testimony to the value of the classics in modern education. Not that both or either of the classic languages should be required of all the youth. In a democratic state like ours, whose preservation depends on the education of the whole people, the indispensable studies would not go far beyond English. But for those whose aim for themselves and their children is leadership or the companionship of

leaders in their chosen profession and in educated society, more than the essentials is needed. The man who is to enjoy the respect and honor of the community must have in him more than the minimum requirements of his trade, more than that smattering of general information that will keep him from being called an ignoramus. It is reserve of power that at all times inspires confidence and in the day of need brings results. This reserve of power the pursuit of the classics, it seems to me, gives in a preeminent degree. From the pursuit of the classics come, probably as from no other studies, concentration, discrimination, strengthened memory, orderly habit, exact expression, power to conquer difficulty, above all the feeling for getting things right, and at the same time a knowledge is gained of the sources of our civilization, and acquaintance with those primal men whose spirit has permeated the ages and still lives productive today. In a word, on the one side comes power to think; on the other, knowledge of the basic material with which our thinking is concerned. And to that is added the purification and elevation of spirit that follows the contemplation of beauty, the ideal of how to live that is beyond the knowledge of how to make a living.

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I have of late years with an increasing interest attempted to canvass the influences of different elements in my education upon my qualifications for the particular work which has fallen to my lot during the last thirty-five years.

I think I would prefer to have dropped out of my life and thought and work any other element in my education rather than to lose the things which the study of Greek brought to me.

Of course I should except English with the things that go with that, but on the whole, aside from English,

I have always thought I got more power of drawing fine distinctions, of seeing things clearly, of expressing myself so that other people could understand me, of insight into certain phases of human life and human history, and of inspiration for everything that was worth while being inspired for, out of my Greek study than out of any other single study extending over a similar length of time and taking a similar amount of energy; and while my facility in reading Greek has become very slight, I find when taking up my Homer or Plato that I am still able to get inspiration and help from communion with the Greek spirit and Greek ideas.

It is quite a distinctly different value which I got from my study of Latin, which was more extensive in time than my study of Greek. The study of Roman history—which I am sure I should never have been able to understand in any such way as I think I understand it without the study of Latin stretching over six years—has been to me an abiding source of strength for all my work. The study of a civilization which in a certain sense represents to us a closed cycle is full of helpful suggestions. At least it has been so to me, and I am free to say that the study of Roman institutions, Roman law, Roman history, Roman life, has been distinctly more valuable than a corresponding study of things German, to which I have also given much attention and from which I have derived great benefit.

I do not know, of course, what is to become of classical study in this country, but personally I should regard it as a great blow to the development of some of the finest and most important sides of American life if the study of Greek and Latin should fall to the relatively unimportant place now occupied by the study of As-

syrian and Babylonian, as some people think it is bound to do.

I think one is oftentimes inclined to attribute whatever small success he may have had in any line to the wrong causes, and this may be true of myself, as I am sure it is of many of my friends and colleagues whose ideas on such matters seem to me very erroneous, but I have felt very distinctly that in the preparation for the work I have been called upon to do—a somewhat varied one from a pedagogical point of view—the study of Greek and Latin grammar and Greek and Roman history and Greek and Roman literature was one of the most valuable elements.

I wish you great success in keeping before the American people the importance of these things in the presence of such retrograde tendencies as it seems to me some of our most prominent pedagogues are displaying.

M. L. BURTON

President of the University of Minnesota

That classical studies have been of very great value to many persons is simply a matter of fact, and not of opinion. Their value moreover has not been purely cultural but intensely practical. That multitudes of students who have pursued classical courses have not shared very fully in these values seems equally certain. The vital question in regard to the classics, therefore, so far as it concerns our colleges and universities, centres upon the position which is given the classical studies. It would seem to be wise not to require all types of students to pursue the classics, but to make sure that all those who have the interest in and aptitude

for such studies should be afforded the very best opportunities and facilities for acquiring a genuine mastery of the languages and a vital appreciation of the culture which they represent.

BENJAMIN IDE WHEELER

President of the University of California

It is my experience that students who have had a sound classical training in their earlier years make, later on, better students even in the applied sciences than those who have the usual haphazard foundation.

JAMES A. BLAISDELL

President of Pomona College, California

Your request for a brief statement regarding my judgment of the value of the classics gives me opportunity once more to renew my persistent witness to this article of my educational confession of faith. First of all, I gladly testify to my indebtedness to a classical training, a privilege which has so amplified and enriched my life that I cannot adequately express the obligation I feel to those who directed me in this course. And, secondly, I desire to say that I feel increasingly, as the years go by, the importance of such training not only in the establishment of a large sense of human values, but also as creating those habits of accuracy and logic which are the basis of the whole scientific process.

SIR WILLIAM PETERSON

Principal of McGill University, Montreal

The appearance of Mr. R. W. Livingstone's book entitled "A Defence of Classical Education" (Mac-

millan 1916) is highly opportune. There is a popular impression that the war is going to turn us from the classics to things that are said really to count, such as, for instance, ideally perfect processes for the manufacture of high explosives! We hear much of the neglect of science and there is a demand for educational reconstruction on the most radical lines. But the truth seems to be that while Germany has certainly not neglected physical science her school curriculum continues to take more account of Latin and Greek than is the case either in England or in America. This is how Mr. Livingstone, in his Introduction, scores the point that education in "scientific" Germany is really predominantly classical:

(1) The makers of the greatness of modern Germany are the generations educated before 1900; the vast majority of these were educated in the classical Gymnasium with its compulsory Latin and Greek.

(2) Even in 1911, of over 400,000 boys receiving secondary education in Germany, 240,000 were at schools in which Latin is compulsory, and 170,000 of these at schools where Greek is compulsory also.

(3) In the remaining, purely "modern" Realschulen, so far from physical science occupying the chief place in the curriculum, only two hours out of twenty-five a week are allotted to it in the lowest forms and six out of thirty-one in the highest.

No doubt the whole subject is hampered by considerations of what is practically possible within the limitations of the school curriculum and in view of the claims quite properly urged on behalf of new subjects; but it may still be doubted whether any better foundation of training, even for the young scientific worker, can be

provided than that which the classical languages supply. In the higher reaches the question is almost outside the sphere of controversy; there is no better source of light and stimulus than the study of the literature, philosophy, history and art of the classical nations of antiquity. But even in the lower stages the process of learning, say Latin grammar, has an educational value of its own. Even an elementary knowledge of this subject is the best key to all language study, and there is little danger that a capable boy who has been competently taught what may be called the "logic of grammar" through the Latin will ever revcal himself as illiterate in the use of English. The trouble on this continent is that there is a considerable tendency to belittle language study in general. Yet who can doubt that Mr. Livingstone is right in his view that "not to know Latin is to have missed an admirable training in precise and logical thought," and that especially in view of the slipshod character of much of our current English speaking and writing, it is a "perpetual discipline of accuracy in thought and word, and a rod for the back of journalistic chattering"?

My own review of the whole discussion, and the confession of my faith, may be found by those interested in a paper entitled "The Claims of Classical Study in Modern Education" which forms part of a volume of essays recently published.[1] I shall conclude by repeating the words used, not long before his lamented death, by that great teacher and eminent writer, Samuel Henry Butcher: "So long as there is felt to be any distinction between education and apprenticeship, between training of the mind and preparing for a profession, between disciplined intellect and sharpening of the wits,

[1] "Canadian Essays and Addresses," Longmans, 1915, pages 297-308.

so long will the classics remain, I do not say as the only instrument, but as an incomparable instrument in a liberal education."

### Sir Robert Alexander Falconer

President of the University of Toronto

Classical studies afford a unique mental discipline in the realms of thought and language. One of the most pressing intellectual and moral needs of the modern world is precision in thought and an exact use of words. We realize what we mean when we fit what we have to say with the proper expression. Hitherto no better means have been devised for providing such a training in the use of language than the study of Latin and Greek.

Greece and Rome present in combination a finely balanced manhood. In no literature are the fundamental problems of philosophy, morals, politics and history analyzed with greater incisiveness; and in the epic, drama and oratory standards of art in life are presented in their most perfect form.

The Greek and the Roman worlds along with the Hebrew underlie most of what is best in our present civilization; for this reason in order to understand even our modern life the educated man should be acquainted with the contributions made by Greece and Rome.

### Daniel M. Gordon

Principal of Queen's University, Kingston, Ontario

You ask for a brief statement from me on the value of classical studies. I am strongly in favor of continuing these studies in the position they occupy alike in

Princeton and in our own university. It is still an unanswered question what good substitute the opponents of classical education could offer for the study of the classics, especially of Latin.

At the same time, I think that it should now be regarded as worthy at least of serious consideration whether some acquaintance with Greek and Latin literature and history might not be acquired through English translations by those who have not had an opportunity of studying the original languages, or of acquiring sufficient familiarity with them to derive real benefit and enjoyment from them.

EDGAR ODELL LOVETT
President of the Rice Institute
Houston, Texas

So long as men love learning, classical studies will live. So long as men seek truth will the spirit and service of science endure. And in beauty and holiness, religion and art will outlast them all. These are the elements of a civilization that traces its origins to Palestine and Greece, and finds its sources in the mingling of streams from Athens and Sion through Rome. Three main currents of that civilization—the Rise of Christianity, the Revival of Learning, the Rise of Modern Science—each in its turn the new knowledge in conflict temporarily with the old, have contributed to the common knowledge of cultivated persons in all civilized lands. An education that would not draw heavily from this common stock could hardly be called liberal either in letters, science, or art.

## 4. SCHOOLS

ALFRED STEARNS

Principal of the Phillips Academy, Andover, Massachusetts
For the address of Principal Stearns see page 44.

### LEWIS PERRY

Principal of The Phillips Exeter Academy, Exeter, New Hampshire

The Phillips Exeter Academy has always stood for what may be called the old fashioned classical education. We realize that where there is no change, there is no growth and no progress, but we believe that the severe requirements in Latin and Greek which have constituted an important part of the work in The Phillips Exeter Academy, and which have formed a tradition in the school, are one of the great assets of the school at the present time. Until certain studies have proved themselves to be of greater value than Latin and Greek in a cultural and in a disciplinary way, the curriculum of The Phillips Exeter Academy will continue along the present lines.

### GEORGE L. PLIMPTON

Principal of Tilton Seminary, Tilton, New Hampshire

I have been a schoolmaster for twenty-five years and headmaster of one of the old New England academies for twenty years. During my twenty-five years of teaching I have seen the tendency away from the classics, especially on the part of departments of public instruction, and in connection with the high schools. Vocational studies such as mechanic arts, domestic science, agriculture and commerce are doubtless more directly practical for certain students than the classics, yet I question this tendency to put all secondary educa-

tion on the "bread and butter" basis or on the so-called practical basis. I personally do not subscribe to the entire abandonment of a belief in mental discipline. Whether power can be transferred or not, I think I can see that something has taken place in the minds of boys and girls who have had four years of Latin and three years of Greek. There is a strength and grasp of mental power in the majority of those who have had a classical training that is not found in the majority of those who have taken a so-called vocational or non-classical course. If Daniel Webster were in the schools of Salisbury today, a town not far from where I write, he would be advised to take an agricultural course as the course most likely to fit him for his probable environment. Instead of that somebody advised and encouraged him to go on and get a classical education and graduate from Phillips Exeter Academy and from Dartmouth College. Daniel Webster might have made an eminent New Hampshire farmer, but most of us New Hampshire people like to believe that he was more useful to the nation for the training which he received and the subsequent career that he followed and the influence that he achieved.

I notice a lack not only in pupils who have not had a classical training but in candidates for teachers' positions and in young teachers who have come from college with little or no training in Latin and Greek. This is apparent in certain very obvious errors in the use of English, particularly in reading and in the pronunciation of names and words that would be very familiar to every student of the classics.

In short, I can not see how one can well understand English literature unless he has had some training and experience in classical studies.

## Henry Pennypacker

Head Master of Boston Latin School, Boston, Massachusetts

I regret that I cannot make any brief statement on the value of classical studies. My sermon would be long and tedious. I am a prejudiced witness. For two hundred eighty years both Greek and Latin were required of every boy in this school and we who are steeped in the school's atmosphere, who value its influence and the effect of its traditions, are sure that its classical course is responsible in great measure for the high degree of success that its graduates have attained. Three years ago, we yielded to the pressure of the times and admitted German into our course as an alternative for Greek, but it has by no means supplanted Greek in the school and at the present time, as shown by our yearly elections, the favor of the boys is very evenly divided between the two languages.

There is no trait of man so preeminently human as his faculty of speech, and we study the classics because they are the humanities of our forefathers. No man can get a just appreciation of this day's civilization without a glimpse at least of the glorious past and a breath of its atmosphere. We study the classics to develop our language sense, to add refinement and happiness to life, to develop intellectual and spiritual taste, and to make us men stronger than our fathers, as the world demands.

## Ernest G. Hapgood

Headmaster of Girls' Latin School, Boston, Mass.

Note: Dr. Hapgood has sent word of his complete sympathy with the cause of classical education. The following extract is part of a statement recently prepared by several teachers and forwarded by him to show the attitude of the Girls' Latin School.

Not only a flexibility in the use of English may be

gained by translating the classics but also a great increase in one's vocabulary and a power to discriminate between the shades of meaning in English words, from a knowledge of their Greek or Latin originals.

The memory, too, is trained, for it is necessary not only to learn all the common Latin or Greek forms and the vocabulary of the most common words and to understand the most important principles of syntax, but to have these forms and words and grammatical principles at hand, in order to interpret the meaning of the given passage. Just here we may note that another mental faculty is brought into play, namely the judgment; for the proper solution of the given problem can be obtained only by the most careful weighing and balancing of the different meanings and the selection of the one which seems best suited to the context.

Another result, nearly as important as those already mentioned, is a realization on the part of the pupil of the necessity and value of mental work, and a respect for intellectual effort.

Furthermore, the student of the classics not only learns something of the history and life of the ancient Greeks and Romans, but from his contact with their writings instinctively pictures their surroundings and thinks their thoughts, is actually carried back to their times, and lives in their surroundings. Hence the imaginative faculty is stimulated and strengthened.

In conclusion, "It is no paradox to say that the educational value of classical study consists largely in the fact that it is what the world calls 'useless,' so that there is no temptation to subordinate it to unworthy aims, while on the other hand its true usefulness is beyond question."

## D. O. S. Lowell

Headmaster of Roxbury Latin School, Boston, Mass.

One of the many arguments for classical studies is the fact that they are the key to English literature. If literature has value—and even the Philistine will scarcely deny that—whatever renders it more comprehensible is also valuable. Who that has not drunk of the springs of antiquity can appreciate Milton's poetry or Bacon's prose, not to mention the writings of a hundred inferior authors? Can one enjoy oratory to the full and know nothing of Cicero and Hortensius, of Demosthenes and Pericles? or poetry, if he is ignorant of Aeschylus and Homer and Virgil? And so we may run through the gamut of all English literature since Chaucer's day and find ourselves deaf to the harmonies of overtones and undertones, unless our ears are trained and tuned to catch the echoes of the ages past.

It is said that we may know the classics through translations. That is either sophistry or ignorance. We may recognize them, but we shall never know them. Who can copy the Aphrodite of Melos, or a painting by Raphael so that his work will have half the value of the original? Yet such work may be much nearer to reproduction than any translation of a great author can be.

"Some there be that by due steps aspire
To lay their just hands on the golden key";

to such the classics make appeal, and ever will, be their numbers great or small; while others will advance arguments (by no means new) to make the worse appear the better cause, and to prove that pinchbeck is more valuable than gold. As Bacon says, in his "Advancement of Learning":

"I do not pretend, and I know it will be impossible for me, by any pleading of mine to reverse the judgment, either of Aesop's cock, or of Midas, or of Paris, or of Agrippina, or of a number of the like popular judgments. For these things continue as they have been, but so will that also continue whereupon learning hath ever relied, and which faileth not: *Justificata est sapientia a filiis suis.*"

### Endicott Peabody

Head Master of Groton School, Groton, Mass.

I have got Mr. Sturgis, the head of our classical department, to jot down a few memoranda concerning the value of classical studies. I may add, for my part, that I endorse all that he says.

In my opinion classical studies are today of peculiar value:

1st—As one of the subjects best adapted to developing accurate and intelligent habits of mental activity.

2nd—As an almost necessary foundation for the use of correct and forcible English.

3d—As a necessary background for the appreciation of literature in general.

4th—As developing in a select number of pupils a real love of Greek and Latin literature, which will be a lifelong source of pleasure and an inspiration to creative work.

### William G. Thayer

Head Master of St. Mark's School, Southborough, Mass.

My experience of thirty years as a schoolmaster confirms my conviction that the need of the classics in liberal education is greater today than ever. I shall be glad

to join in any protest against tendencies in education which would eliminate Latin and Greek from the training of a scholar.

CHARLES A. BUFFUM
Professor of Latin, Williston Seminary, Easthampton, Mass.

Williston Seminary was founded in 1841 as a classical school, and though we now have full courses in advanced mathematics, science and modern languages, we still offer full courses in Latin or Greek, and consider them indispensable to the best type of liberal education. We think that nothing is more essential to the man of culture than the intimate knowledge of his own language, and the ability to use it with ease, force, grace and precision. And we consider the critical study of Latin or Greek the only means of attaining this end.

We think that since mathematics, science or modern languages have so occupied the front of the educational stage, we have observed a lamentable deterioration in scholarship. It is only the exceptional pupil, nowadays, who manifests that eagerness and zeal for knowledge which is implied in the very root meanings of the word "study." We believe too, that there is a refining influence in the study of the masterpieces of Latin and Greek literature. The pupil who has learned to appreciate beauty of thought and language in his Virgil or his Homer will be the more swift to recognize and appreciate beauty of form in sculpture, and beauty of form and color in painting, and so to become a man of good taste and refined sensibilities.

Add to this the fact that no mental discipline has yet been found superior to that afforded by the critical study of the classics, and we have reason enough to claim

that classical studies should occupy a prominent part in the training of a liberally educated man.

SEAVER B. BUCK
Headmaster of Berkshire School, Sheffield, Mass.

I am glad to go on record as a schoolmaster who believes in the study of the classics—particularly Latin—as the only adequate foundation for the study of modern languages. As a means of mere training in mental accuracy I see no advantage in classical studies over mathematics, but the boy who would seek good success in only language study and who would desire to acquire a style at once facile, accurate and vigorous, should be thoroughly grounded in both Latin and Greek. I would make Latin a requirement for all boys in the earlier years of the preparation for college but I would not insist that they continue either Greek or Latin beyond the "elementary" requirement in the case of boys who seek a scientific training.

CHARLES S. INGHAM
Master of Dummer Academy, South Byfield, Mass.

In this matter the position of the school is the same as it was a century and a half ago when Master Moody taught here his famous group of boys. In some way or other, using little besides Latin and Greek, he prepared men for great careers in all walks of life. As compared with the modern preparatory course, his students covered but little ground but they knew what they knew and knew that they knew it.

We still believe that the classics give a great teacher the best means of impressing his ideals and personality

upon his students afforded by any curriculum. Most of us who have enjoyed the advantages of a liberal education look back to some teacher of Latin or Greek as the commanding figure among those who have taught us. I know this to be a fact in many cases.

In fighting for the classics we are fighting for the proposition that the interest which abides is that which follows hard work rather than that which precedes it. In no way of which I am aware can we protest so effectively against the shallow and superficial in education as by keeping the classics in the curriculum and by holding ourselves, our subordinates and our students to that high standard of work which our own teachers so consistently exemplified in their teaching of Latin and Greek.

D. W. Abercrombie

Principal of Worcester Academy, Worcester, Mass.

How far distant seem the days when, with the purpose to practice law, I still read Plato with George Herbert Palmer, Euripides and the Philippics with Frank Anderson, Cicero's Letters with William Everett, and Plautus and Lucretius, strange contrasts, with George Martin Lane. As I look back upon those days, and recall the men who with me received this training as undergraduates in Harvard, it is difficult to see how Harvard College at that time failed in its high purpose to train young men for useful and happy lives. The full scheme of its young president, it is true, was not yet in operation. The classics were still enthroned, though elective after the first two years.

As the careers of many of my classmates thus trained under the old curriculum are reviewed, there would not

seem to be lacking energizing and man making material in the *Bildungstoff* of those days. Among them were Percival Lowell, the astronomer; Benjamin Osgood Pierce, the eminent physicist; Edmund March Wheelwright, the builder of stately bridges, a modern *Pontifex Maximus;* Oscar Roland Jackson, the chemist; Francis Cabot Lowell and William Henry Mooney, jurisconsults; Charles Franklin Thwing, educator, and Barrett Wendell and George Edward Woodberry, men of letters.

These men, representing a modest Harvard class of the classical period, show a variety of power and attainment that would free any curriculum from the charge of inefficiency. President Eliot and the late Charles Francis Adams were together the great protagonists of the modern curriculum, the one seeking to turn Harvard College into a German university, as the latter repeatedly charged, and Mr. Adams uttering his destructive Phi Beta Kappa oration against Greek as a "college fetich," and living long enough to see his mistake and repent it. If memory serves me correctly Pierce, who at his burial was called "the sage and saint of the University," elected a course in Greek in his senior year, profound mathematician and physicist as he was, to convince a group of personal friends that he was broad minded and that he sought culture along with the training of the exact sciences.

President Eliot and Mr. Adams, who did more than any other men to slay true cultural training in the house of its friends, were themselves conspicuous examples of what great native endowments, touched by the humanities, can accomplish in the lives of men. The great president's condensed, reserved, lucid style fills out the

fullness of the measure of the Greek μηδὲν ἄγαν. Thucydides never used a more chaste, coherent, convincing prose. Mr. Adams, during the days of his apostasy, never ceased censuring the Harvard that President Eliot succeeded in creating out of the college as he found it. He saw more clearly as he grew older, and recanted his heresy. But it was too late. The fatal blow had been given, and Greek was dethroned.

A great geographer within the last month, with Germany clearly in mind, asked me: "Will science ever again be used for the amelioration and blessing of mankind?" My friend's question suggests how wholly lost from the great world of organized civilization, as we had fondly thought it, is the old Greek thought of the moderation in wisdom of our desires and our emotions, our cults and our philosophies. What have the chemists of Germany produced in their laboratories, out of minds bent on destruction, but engines of destruction, until German science has become almost another word for German ruthlessness? How much has been lost to the world when we look on the resulting desolations that have been wrought through the loss of the fine equilibrium of feelings and desires of the ancient prime of the Greek world. "Will science ever again be used for the amelioration and blessing of mankind?" And when?

Turning to the patent results of the failure of culture of the spirit and mind, that lie all about us in the slovenly and distressing level to which much of life and many of the expressions of human intercourse have fallen, we have only to note the decadence, almost the death, of polite speech, and consequently of politeness in most ways, as it is found today not only among school boys and girls, but in college communities as well.

"Where there is no vision the people perish," is the sufficient comment. There has been little antidote to the influences of vast and widespread wealth and ease. The debasing low priced magazine and short story, the cheaply emotional "movie," the whirling automobile, all these conspire to produce the cheap, purposeless boy and equally cheap and frivolous girl; and seemingly there is no adequate corrective at work. Milton and Shakespeare have no meaning and value, much less picturesque attractiveness and food for the mind for those who have no enrichment of vocabulary or taste through acquaintance, even in small degree, with Virgil and Homer.

WILLIAM C. HILL

Principal of The Central High School, Springfield, Mass.

I am glad to send you my testimony to the value of classics in the best type of liberal education. I might go much more into detail, but the above sentence covers my feeling in this matter. I have no hesitation in saying that my pupils who have had a thorough course in Latin are better off mentally than those who are without it. In taste, judgment and intellectual power I know of no other high school subject which gives equal results.

WILLIAM T. PECK

Principal of The Classical High School, Providence, R. I.

Webster's New International Dictionary, edited by William T. Harris, is a work of incomparable value. It is meant for the use of all educated men who speak the English language. It would be a calamity if they,

because of a complete ignorance of the ancient languages, could not profit from a study of the greater part of its vocabulary as the dictionary presents it, derived from the Latin and the Greek. Latin, too, is the universal language of botany. Greek furnishes the basis of the ever enlarging vocabulary of modern science. As language is an endowment that distinguishes man from the beasts, its structure and development must be of the greatest practical value to him. Forty-five years of experience as a teacher have convinced me that there is no surer means of promoting the power of the intellect than the study of languages, especially the Latin and the Greek, which are not only the vehicle but also almost the very life of thought.

SETH K. GIFFORD

Principal of the Moses Brown School, Providence, R. I.

From my experience and opportunity for observation during forty years (twenty in college and twenty in school), I have no hesitation in saying that the record for business efficiency and professional standing lies strictly in favor of the boy with a classical training.

Even if we admit that a part of this advantage is chargeable to superior mental endowment on the part of boys who have pursued this "antiquated and useless" line of study, there is still a large balance in their favor.

If, in addition, we consider higher spiritual values, such as a man's satisfaction with himself or his general usefulness in society, the case is still stronger.

I give my vote, therefore, for the classics in education and shall continue to do so until I have more compelling reasons than at present for a change of mind and heart.

### George L. Fox

Principal of The University School, New Haven, Conn.

I doubt whether there is any one in active service as a teacher who has taught for a longer or shorter time more boys preparing for Yale than I have had as my pupils. If the future generation of youth is to be trained largely without Latin, I shall be sorry for them for what they have missed, and confidently predict that they will be painfully weak and flabby in intellectual work, painfully superficial and narrow minded, and painfully inefficient in becoming masters of the situation in dealing with hard problems in any professional work.

Possibly my opinions on this point may not be wholly valueless, if I say that during the last fifteen years it has been my regular task to teach all the ordinary subjects, required for admission to college, except the sciences, including French, German, mathematics, ancient and modern history and English. That has given me an excellent opportunity to judge of the value of different subjects in teaching boys to think, and I unhesitatingly and vigorously record my conviction that the study of Latin is one of the best possible means for attaining that end which I look upon as the main end of education.

### Arthur B. Woodford

Headmaster of Hopkins Grammar School, New Haven, Conn.

Please enroll me as one most strongly in favor of classical studies and a form of education primarily cultural.

### Edward H. Smiley

Principal Emeritus of Hartford Public High School, Hartford, Conn.

The Hartford Public School has, throughout its long history, believed heartily in the value of classical training. It holds steadfastly to that belief today. After an experience of more than twenty-five years in the school, I can say in all sincerity that I believe no department of the school has had so strong an influence in maintaining scholarly ideals. It seems to me that it would be disastrous to the cause of education if the ideas of Mr. Flexner and others of his kind should get control of our educational work.

### H. G. Buehler

Headmaster of The Hotchkiss School, Lakeville, Conn.

We think so highly of Latin at the Hotchkiss School that we require it of every pupil, whether the college for which he is preparing requires it or not. We think the practical value of a knowledge of Latin is not inconsiderable to a cultivated gentleman. Entirely apart from this, we think that Latin is a better instrument for training in mental concentration than any substitute which has been offered. We do not accept the theory that "interest" is the chief motive to be appealed to in education. We think that most men who work with their brains have to do the job which is set before them day by day whether they are interested in it particularly or not. We do not know any way to train pupils into the power of application except the old fashioned way of setting them a mental task and making them do it. For such training of the will as applied to study we like Latin.

HENRY A. TERRELL
Principal of the Norwich Free Academy, Norwich, Conn.

The problem of liberal education—and I take the view that liberal training should be carried on in any individual's career up to the point where efficiency demands specialization, whether in profession or trade—is essentially the problem of developing habits and ideals. The "Columbia" school, which insists that "mental power is non-transferable," cannot touch the truth that habits and ideals are universal, and therefore transferable.

For the development of right habits and lofty ideals no subjects have proved themselves so valuable for most young people as the classics and mathematics. Habits are formed and ideals are acquired not so much by direct presentation of thrilling examples of noble action as by the slow process of daily effort.

ROLAND J. MULFORD
Headmaster of Ridgefield School, Ridgefield, Conn.

It seems to me that the question of method is the important one. The time allowed by the college requirements is not enough for all the subjects; and the difficulty with our present education is in the number of studies. Too many are required, and none can be well taught or well learned. Superficiality is the necessary result. If there were time to teach Latin or Greek and a few other essentials it would be satisfactory, and it is not now. Efficiency is not the sole aim of education, nor materialism its goal; interest is most often a transient motive, and the elective system is not possible in schools. The fundamentals of education are the concern of

schools, and in them must be laid the foundations on which the colleges and universities build; a good foundation makes the rest easy. The diversity of the school curriculum is its evil; *non multa sed multum* should be its motto, and it is now the reverse.

A very practical value of classical study lies in the training in a highly inflected language. Any other language is much more easily learned after Latin or Greek has been studied. The beginning of any language is difficult, and the mistake is in dropping the classics after the hard part has been learned. It is certainly worth while for English speaking people to learn Latin; a much larger vocabulary is acquired, and at least the distinctions in meanings and in the use of words are never lost, however much else may be forgotten.

GEORGE E. QUAILE

Headmaster of Salisbury School, Salisbury, Conn.

Classical studies, if properly directed, make for carefulness of expression and against slovenliness. An Ameriean boy may dislike the difficulties of ancient languages, but he dare not take liberties in translating them, such as he takes in other language work. Is it not true that the English of a boy trained in the classics is in general better than that of a boy who has not had that training? Even if he should do no more Latin or Greek, or no more Latin alone, than is done in secondary schools he will be apt to show the effect not only in his English but in his increased respect for beauty of expression in any form whatsoever. For that reason if for no other I should like to see all boys mentally capable, and all are not, given the privilege of some study in the classics.

GEORGE C. ST. JOHN
Headmaster of The Choate School, Wallingford, Conn.

To most of us the value of the classics does not require argument; and to anybody who needs persuasion, Mr. Stearns's article of last winter in the *Atlantic* would seem to me to be final. I almost think that arguing about the value of the classics is the same thing as arguing about the value of religion or of culture.

WILLIAM T. BETTS
Betts Tutoring School, Stamford, Conn.

While headmaster of Betts Academy I used to say: "Other things being equal, give me the football man every time." In developing boys for engineering courses, other things being equal, give me the one with a classical training back of him, every time. In engineering careers, besides personality, is it not intellectual power that enables a man to rise to the top? You can not leave out the classics.

In meeting college entrance requirements, Milton and Virgil are studied the same year. When a boy takes up Virgil he breaks away from the trammels of grammatical constructions, he sees the pictures as Virgil saw them, he describes them in English poetic prose, as Virgil describes them in Latin hexameters. Then the student is able to comprehend Milton and the poets.

Why the opposition to the classics? May it not arise from the catering on the part of the universities to the desire to get into life's work in the shortest time on lines of least resistance?

Shall we call history a cheat? Did not the world emerge from the Dark Ages through going back to the

study of the classics? Suppose it does take more time if classical studies are retained. What is a year or more taken out of the teens compared with intellectual power, with intellectual enjoyment, with intellectual finish in the decades that follow?

Of the debts I owe to the memory of my father, not the least is that he sent me to college well grounded in Latin, Greek, French and German.

### Arthur H. Cutler

Headmaster of The Cutler School, New York

From long experience as a teacher and headmaster, I am convinced that the study of the classics not only helps to an appreciation of good literature and good reading but helps fully as much to accuracy and good style in the use of the English language. The writers of the future will be sadly handicapped if they have only modern languages and science and mathematics to help them. Of course, the elements of all these are necessary. The best mathematician I know reads two pages of Latin or Greek each day.

### Walter R. Marsh

Headmaster of St. Paul's School, Garden City, N. Y.

The position of Saint Paul's School in the matter of classical training is this:

We believe absolutely that power is transferable. For example, we believe that an engineer should have a trained imagination, and we know of no better way to train his imagination than through the study of poetry. We believe thoroughly in classical training because of its disciplinary value. We believe that Latin has this disciplinary value because it is a highly inflected lan-

guage. If we could find another language equally inflected we should be unwilling to substitute it for Latin because we see the value of Latin from a great many angles—historical, governmental, biographical, logical, and especially from the literary angle.

We have sympathy with wise experimentation in education; we look with little sympathy and some amusement on the propagandists now attempting destructive criticism of the solid foundations of centuries. We are willing to learn, and yet, until we can discover something better, we shall cling to the old, because we believe the old is worth while.

JAMES C. MACKENZIE

Headmaster of the Mackenzie School, Monroe, N. Y.

As I turn my mind back some forty-five years to the teaching of some five thousand American boys, I think I may safely say that the marked success of these students has been among those who have taken the solid classical course of study. While the record of the comparatively few boys who have omitted Latin from their school and college course has been as a matter of course more satisfactory than it would have been without the training received along scientific lines, the record of the men who have taken Latin both in school and college has been, by and large, distinctly more notable than of the non-Latin men. The very best record has been made by those who have taken Greek.

In offering this appreciation of classical studies, I am not limiting my consideration to men who have gone only into literary or professional life work. I have in mind men also who have attained prominence in statesmanship and in purely business careers.

### Henry B. Warren

Principal of The Albany Academy, Albany, N. Y.

When in England a few years ago I found many of the English people apparently engaged in a somewhat acrimonious discussion as to the comparative merits of the English and the Continental diet. One morning there appeared, I think in the *Telegraph*, a letter something like this:

"Why change our diet of roast beef, roast mutton, chops, bacon and a simple sweet, which for centuries has nourished the sturdiest people in Europe and has proved so digestible and nourishing that with slight modifications every hospital has adopted it as diet for invalids and convalescents?"

Is not that about all there is of the question?

The heads of high schools and preparatory schools have the key to the situation. Let them discourage weak boys and girls from attempting the most difficult of languages—the Latin—and mildly insist that strong boys and girls take it and give it to them intelligently. Not less Latin and better, but more Latin and better. Greek will take care of itself if taste for Latin is acquired.

### Frederick L. Gamage

Headmaster of Pawling School, Pawling, N. Y.

I should be recreant to myself and to the educational ideals of my entire teaching career if I failed to record my belief, when it was called for, and my deep conviction that the elimination of the classics from modern education would be fatal to real culture of the mind. Granting that the classics are imperfectly taught in many schools, that pupils get but fleeting glimpses of

the real beauties of the languages and only vague notions of the subject matter of the ancient authors, there remains the undeniable value that comes from the exercise of memory, logic, comparison and analysis that is derived from the study of the grammar of the classics and from translation into our own vernacular. I am entirely out of sympathy with those who advocate the substitution of modern languages, no matter how thoroughly taught, for the study of the classics.

S. J. McPherson

Headmaster of Lawrenceville School, Lawrenceville, N. J.

I favor the classics, especially Latin, as an essential element in the best type of liberal education (but not, of course, to the exclusion of the history, literature and life of other peoples and periods), because it is the fountain from which much of our later civilization has flowed. My experience in schools and colleges has confirmed these views because I have witnessed the effects of classical culture in many students.

John C. Sharpe

Principal of Blair Academy, Blairstown, New Jersey

I am fully convinced from observation extending over a long service as a schoolmaster, and the statistics of my own school, that the best students in the classes are almost invariably the students who take the full four years course in Latin. Perhaps your convention will be able to determine whether the ablest boys take Latin or whether the study of Latin develops the ablest boys. In my judgment, the boy of ability much below the average had better not undertake a four years course in Latin for he will hardly be able to realize the advantages that come from the long sustained effort.

Only the boy who has ability to hold up well through the four years will realize the fullest benefit. I believe that the four years of consecutive study of one reasonably difficult subject is much more valuable than the same amount of study spent on four different subjects. No subject in our curriculum is so well adapted to this end as Latin.

### Robert Ellis Thompson

President of The Central High School, Philadelphia

For some twenty years I taught both history and political economy in the University of Pennsylvania to students in both the classical and the scientific courses. I had both classes of students come to me for history in their freshman year, and both again for political economy in their senior year. I could see no marked difference between them as freshmen, but as seniors they differed very widely. The students who had been pursuing the "humanities" in the intervening years had come up to something like the level of their teachers, and took up questions with a firm and intelligent grasp. But those who had been occupied chiefly with scientific studies, although interested in my work, had nothing like the ability the others showed in dealing with a form of work and a set of problems equally new to both. At that time I was not prejudiced in favor of either kind of education. I was the Secretary of the Faculty of Science from its beginning and for a good part of those twenty years, and therefore to some degree enlisted on the scientific side of things. But year after year the conviction grew upon me that we were educating the students in arts, but only instructing those who graduated in science.

This experience has been substantially repeated in the Central High School. I am teaching political economy and ethics in the last year of the course to (1) students who take both Latin and Greek; (2) to students who elected German instead of Greek along with their Latin, and (3) to students who got rid of even Latin as soon as they could. The first class almost always carry off the honors, do the best work in all subjects and acquire the habits of earnest students. Also the second class are much better than the third in almost every way.

### Stanley R. Yarnall

Principal of the Germantown Friends' School

Latin should be studied because it is a hard subject for most boys and girls. It requires clear thinking and concentration and that systematic continuous disciplinary study which is essential for any real education. At the present time there is danger that the short cuts in education will severely handicap the future of our boys and girls. The cry is for subjects that have an immediate dollar and cents value. Parents are apt to overlook the fact that such studies, instead of being truly liberal in the sense of opening many doors and opportunities for their boys and girls, are in reality narrowing. They circumscribe the opportunities and while opening one or two doors effectively close other doors.

### Thomas S. Cole[1]

Instructor in Latin, South Philadelphia High School for Boys

My personal opinion would be worth little in such a connection, but I can safely say that we still have faith here in the educative value of the ancient classics. This

[1] Statement authorised by Principal Whitaker on behalf of the school.

school offers a four year course in Latin, and the subject still allures a large percentage of our best students. A majority of the boys here are of foreign parentage, and we believe also that the intensive study of English involved in the translation of Latin provides such pupils with some of their most valuable work in expression.

ELLIS A. SCHNABEL
Northeast High School, Philadelphia

Man is distinguished from animals, as Sallust tells us, in possessing an intellect as well as a body; and that education which regards only the physical man and trains the hands alone, so that it perfects the human machine alone, neglects the man's nobler side. The ever increasing demand for "hewers of wood and drawers of water" does not mean that these must be merely machines; what "Plato thought and godlike Cato was" is as valuable to such as these as to any other class even in simply giving them a spiritual uplift and outlook to make them happy at their appointed task. The classical training has never unfitted men for vocational work, while vocational training has made many a one unfit for better service to society. It is the spirit of true democracy to broaden opportunity to rise to the height of one's power. It is false democracy to insist that all must be content with the lowest form of social service.

CHARLES H. STROUT
Headmaster of St. Luke's School, Wayne, Pa.

1. Nothing can take the place of Latin and Greek as mental discipline.

2. Latin and Greek are hard, and the soft boy of the present day needs hard things.

3. Some one said to my class in college when we were graduated: "Young gentlemen, you have had four years training in anything you want to do." I believe I am a better headmaster and teacher because I was trained along the old lines. I believe the men in my class at Dartmouth have had greater success because of their training along the old classical lines than if they had specialized.

4. It is a pity to train a boy along vocational lines, and to leave doors forever closed to him.

5. I can't believe the boy of thirty-five years ago had better stuff in him than the boy of the present day. I know he worked harder, took his school and college more seriously, and, I believe, came out better prepared. I am convinced that this is because he had to work, and that his work, along the old lines, was better calculated to bring results.

WILLIAM MANN IRVINE

Headmaster of The Mercersburg Academy, Mercersburg, Pa.

A friend of mine who is a bishop was discussing the classical question with a planter in one of our Southern States. The bishop said:

"Do you sow fertilizer with your crops?"

"I do."

"After a time do you go out with a reaper or binder and gather a crop of fertilizer?"

"No."

"Well then, why do you sow fertilizer?"

"To raise bigger crops."

"That is exactly why I recommend the study of Latin and Greek, namely to enlarge a man's crop of ideas."

No man can have a thorough knowledge of biology unless he has also studied embryology. Embryology deals with the beginnings of life. Likewise no man can understand modern civilization thoroughly unless he understands the Greek and Latin civilizations from which many of our best ideals have come to us.

We have no quarrel with technical education. Its efficiency and training will help us to win this war. It is a great mistake, however, to say that all people should be trained by the same methods. Technical education has given us a splendid body of engineers and men of science, but everybody knows that diplomacy and statesmanship play a big part in war, and for the training of diplomats and statesmen the classical studies surpass the technical studies by far.

If the classical studies are forgotten, in the next generation or two we shall look in vain for men like Woodrow Wilson, Theodore Roosevelt, Elihu Root, James Russell Lowell, Henry van Dyke, Joseph H. Choate, and many others who have ranked as our best diplomats and statesmen. These men received their preliminary training in a large measure by studying the classics.

### Thomas S. Baker

Director of The Tome School, Port Deposit, Md.

So much has been said and written concerning the value of the classics in education that I shall not make the vain attempt to add anything new. I can only testify that I heartily believe classical studies deserve a prominent place in any scheme of mental training intended to prepare the young for life. This is not to say that I believe everybody should study Latin and Greek; there are many who should not. Unquestionably, how-

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Principal of The Albany Academy, Albany, N. Y.

When in England a few years ago I found many of the English people apparently engaged in a somewhat acrimonious discussion as to the comparative merits of the English and the Continental diet. One morning there appeared, I think in the *Telegraph*, a letter something like this:

"Why change our diet of roast beef, roast mutton, chops, bacon and a simple sweet, which for centuries has nourished the sturdiest people in Europe and has proved so digestible and nourishing that with slight modifications every hospital has adopted it as diet for invalids and convalescents?"

Is not that about all there is of the question?

The heads of high schools and preparatory schools have the key to the situation. Let them discourage weak boys and girls from attempting the most difficult of languages—the Latin—and mildly insist that strong boys and girls take it and give it to them intelligently. Not less Latin and better, but more Latin and better. Greek will take care of itself if taste for Latin is acquired.

### Frederick L. Gamage

Headmaster of Pawling School, Pawling, N. Y.

I should be recreant to myself and to the educational ideals of my entire teaching career if I failed to record my belief, when it was called for, and my deep conviction that the elimination of the classics from modern education would be fatal to real culture of the mind. Granting that the classics are imperfectly taught in many schools, that pupils get but fleeting glimpses of

the real beauties of the languages and only vague notions of the subject matter of the ancient authors, there remains the undeniable value that comes from the exercise of memory, logic, comparison and analysis that is derived from the study of the grammar of the classics and from translation into our own vernacular. I am entirely out of sympathy with those who advocate the substitution of modern languages, no matter how thoroughly taught, for the study of the classics.

S. J. McPherson

Headmaster of Lawrenceville School, Lawrenceville, N. J.

I favor the classics, especially Latin, as an essential element in the best type of liberal education (but not, of course, to the exclusion of the history, literature and life of other peoples and periods), because it is the fountain from which much of our later civilization has flowed. My experience in schools and colleges has confirmed these views because I have witnessed the effects of classical culture in many students.

John C. Sharpe

Principal of Blair Academy, Blairstown, New Jersey

I am fully convinced from observation extending over a long service as a schoolmaster, and the statistics of my own school, that the best students in the classes are almost invariably the students who take the full four years course in Latin. Perhaps your convention will be able to determine whether the ablest boys take Latin or whether the study of Latin develops the ablest boys. In my judgment, the boy of ability much below the average had better not undertake a four years course in Latin for he will hardly be able to realize the advantages that come from the long sustained effort.

Only the boy who has ability to hold up well through the four years will realize the fullest benefit. I believe that the four years of consecutive study of one reasonably difficult subject is much more valuable than the same amount of study spent on four different subjects. No subject in our curriculum is so well adapted to this end as Latin.

### Robert Ellis Thompson

President of The Central High School, Philadelphia

For some twenty years I taught both history and political economy in the University of Pennsylvania to students in both the classical and the scientific courses. I had both classes of students come to me for history in their freshman year, and both again for political economy in their senior year. I could see no marked difference between them as freshmen, but as seniors they differed very widely. The students who had been pursuing the "humanities" in the intervening years had come up to something like the level of their teachers, and took up questions with a firm and intelligent grasp. But those who had been occupied chiefly with scientific studies, although interested in my work, had nothing like the ability the others showed in dealing with a form of work and a set of problems equally new to both. At that time I was not prejudiced in favor of either kind of education. I was the Secretary of the Faculty of Science from its beginning and for a good part of those twenty years, and therefore to some degree enlisted on the scientific side of things. But year after year the conviction grew upon me that we were educating the students in arts, but only instructing those who graduated in science.

This experience has been substantially repeated in the Central High School. I am teaching political economy and ethics in the last year of the course to (1) students who take both Latin and Greek; (2) to students who elected German instead of Greek along with their Latin, and (3) to students who got rid of even Latin as soon as they could. The first class almost always carry off the honors, do the best work in all subjects and acquire the habits of earnest students. Also the second class are much better than the third in almost every way.

STANLEY R. YARNALL

Principal of the Germantown Friends' School

Latin should be studied because it is a hard subject for most boys and girls. It requires clear thinking and concentration and that systematic continuous disciplinary study which is essential for any real education. At the present time there is danger that the short cuts in education will severely handicap the future of our boys and girls. The cry is for subjects that have an immediate dollar and cents value. Parents are apt to overlook the fact that such studies, instead of being truly liberal in the sense of opening many doors and opportunities for their boys and girls, are in reality narrowing. They circumscribe the opportunities and while opening one or two doors effectively close other doors.

THOMAS S. COLE[1]

Instructor in Latin, South Philadelphia High School for Boys

My personal opinion would be worth little in such a connection, but I can safely say that we still have faith here in the educative value of the ancient classics. This

[1] Statement authorised by Principal Whitaker on behalf of the school.

school offers a four year course in Latin, and the subject still allures a large percentage of our best students. A majority of the boys here are of foreign parentage, and we believe also that the intensive study of English involved in the translation of Latin provides such pupils with some of their most valuable work in expression.

ELLIS A. SCHNABEL
Northeast High School, Philadelphia

Man is distinguished from animals, as Sallust tells us, in possessing an intellect as well as a body; and that education which regards only the physical man and trains the hands alone, so that it perfects the human machine alone, neglects the man's nobler side. The ever increasing demand for "hewers of wood and drawers of water" does not mean that these must be merely machines; what "Plato thought and godlike Cato was" is as valuable to such as these as to any other class even in simply giving them a spiritual uplift and outlook to make them happy at their appointed task. The classical training has never unfitted men for vocational work, while vocational training has made many a one unfit for better service to society. It is the spirit of true democracy to broaden opportunity to rise to the height of one's power. It is false democracy to insist that all must be content with the lowest form of social service.

CHARLES H. STROUT
Headmaster of St. Luke's School, Wayne, Pa.

1. Nothing can take the place of Latin and Greek as mental discipline.

2. Latin and Greek are hard, and the soft boy of the present day needs hard things.

3. Some one said to my class in college when we were graduated: "Young gentlemen, you have had four years training in anything you want to do." I believe I am a better headmaster and teacher because I was trained along the old lines. I believe the men in my class at Dartmouth have had greater success because of their training along the old classical lines than if they had specialized.

4. It is a pity to train a boy along vocational lines, and to leave doors forever closed to him.

5. I can't believe the boy of thirty-five years ago had better stuff in him than the boy of the present day. I know he worked harder, took his school and college more seriously, and, I believe, came out better prepared. I am convinced that this is because he had to work, and that his work, along the old lines, was better calculated to bring results.

WILLIAM MANN IRVINE

Headmaster of The Mercersburg Academy, Mercersburg, Pa.

A friend of mine who is a bishop was discussing the classical question with a planter in one of our Southern States. The bishop said:

"Do you sow fertilizer with your crops?"

"I do."

"After a time do you go out with a reaper or binder and gather a crop of fertilizer?"

"No."

"Well then, why do you sow fertilizer?"

"To raise bigger crops."

"That is exactly why I recommend the study of Latin and Greek, namely to enlarge a man's crop of ideas."

No man can have a thorough knowledge of biology unless he has also studied embryology. Embryology deals with the beginnings of life. Likewise no man can understand modern civilization thoroughly unless he understands the Greek and Latin civilizations from which many of our best ideals have come to us.

We have no quarrel with technical education. Its efficiency and training will help us to win this war. It is a great mistake, however, to say that all people should be trained by the same methods. Technical education has given us a splendid body of engineers and men of science, but everybody knows that diplomacy and statesmanship play a big part in war, and for the training of diplomats and statesmen the classical studies surpass the technical studies by far.

If the classical studies are forgotten, in the next generation or two we shall look in vain for men like Woodrow Wilson, Theodore Roosevelt, Elihu Root, James Russell Lowell, Henry van Dyke, Joseph H. Choate, and many others who have ranked as our best diplomats and statesmen. These men received their preliminary training in a large measure by studying the classics.

THOMAS S. BAKER

Director of The Tome School, Port Deposit, Md.

So much has been said and written concerning the value of the classics in education that I shall not make the vain attempt to add anything new. I can only testify that I heartily believe classical studies deserve a prominent place in any scheme of mental training intended to prepare the young for life. This is not to say that I believe everybody should study Latin and Greek; there are many who should not. Unquestionably, how-

ever, certain types of mind are developed most effectively and completely by a course of language study, and for such types Latin and Greek afford the best pabulum. This indeed, I believe, is the testimony of the enlightened everywhere, even outside of classical circles, and I feel very sure that the modern protest on the part of so-called reformers is destined to prove as ineffectual as it certainly deserves to be.

HARRY A. PETERS
Principal of University School, Cleveland, O.

The following are the reasons why we require Latin:

Half of English comes from Latin, directly or through French. As a basis for an exact knowledge of English familiarity with Latin is invaluable.

A knowledge of the lives and acts of leaders both among men and among nations is a basis for decisions for matters of today. For example, Caesar's military campaigns were largely on the same ground and on the same plan as are those in Europe today.

Latin is a very logical language, and requires reflective thinking for translation and composition. The mastery of Latin requires effort and concentration; and anything which does that today is performing its service in education.

While Latin is not a living language, it can be and must be connected with life of today. A more serious effort in that direction on the part of teachers of Latin, to my mind, would be repaid a hundredfold in increased interest in the study of the language and in getting its admitted value.

## 5. THE MINISTRY

### George A. Gordon

Minister of the Old South Church, Boston

I believe that every capable boy or girl should be encouraged to take either Latin or Greek, or preferably both.

### William D. McKenzie

President of Hartford Theological Seminary, Hartford, Conn.

The thorough investigation of the New Testament in its history and meaning must forever rest on a knowledge of the Greek language. He who knows it not is shut off from a personal consideration of the deepest problems concerning the origins of the faith which he professes.

### Hugh Black

Professor in Union Theological Seminary, New York City

Apart from the absurdity of a man trying to deal in any profound way with a book of whose language he is ignorant, it ought to be remembered that practically all learned commentaries are unreadable to the man who does not know Hebrew and Greek. It does not mean that we want to make men all specialists in these languages, but it is not so hard to get a working knowledge which enables one to get the good out of the work of other scholars. It can be demonstrated that for the highest education the languages and literatures and history of Greece and Rome are supremely utilitarian and that nothing can take their place.

Whatever place is given to other methods of training

for special work, Latin and Greek will remain as a necessary part of the equipment of the theological scholar.

BENJAMIN B. WARFIELD

Professor in Princeton Theologcal Seminary

I am a teacher of Christian theology, and as the principal source book of Christian theology is a Greek book, and a large part of its literature is written in Latin, I am predisposed to desire that Greek and Latin should have a large place in academic training. I fully recognize, however, that the training given in our academic institutions should not be determined by the needs of any one profession. Its primary object, in my view, in fact is not so much to impart knowledge as to form mind; and it is because I have a clear and, as I believe, well founded conviction that a sound classical training provides the best means at our disposal for a sound mental discipline that I am an earnest advocate of it. Were we for any reason debarred from the use of the classics, I have little question that much the same training which we now obtain from them could be obtained without them. But neither do I have much doubt that the same training could not be obtained without them without a larger expenditure of both labor and effort. So long as we have the choice in a free field the classical course, in my judgment, should be chosen as supplying the best means as yet known of general mental discipline. What I chiefly value in it is the quality of mind which it produces. As Oliver Wendell Holmes would express it, it seems permanently "to stretch the *pia mater*."

### JOHN DEWITT

Recently Professor of Church History in Princeton Theological Seminary

The educated man whom the college seeks to send forth into the world is a man disciplined in all his faculties and receptive upon every side; a man of the widest intellectual sympathies; a man of the humanities; a man, in short, glowing not so much with the special enthusiasm of a special though scientific occupation, but glowing with "the enthusiasm of humanity," imbued with the spirit and alive to the possibilities of the entire race.

In these days, in view of the strong tendency both to specialize and to secularize education, it is well to recall the noble history in the modern world of this system of liberal training. It is well to reinform ourselves of that continuous movement through the centuries which under the conduct of the largest minds and loftiest spirits has in our own land culminated in the colleges which have so largely blessed and honored both Church and State. We owe much indeed to the growth of material science under the nurture of the inductive philosophy. But the debt of the world to the education which survives in our colleges is far larger and far more profound.

### JAMES G. K. MCCLURE

President of McCormick Theological Seminary, Chicago

As I review my life I am quite clear in my conviction that Latin and Greek have been preeminent studies in disciplining and enriching my mind and in fitting me for my intellectual duties.

## 6. LAW

ROSCOE POUND
Dean of the Law School, Harvard University

I have taught law in four different law schools and, with some care and much interest, have looked into the pre-legal education of students in each of the schools wherein I have taught. What I have learned in this way has produced a strong impression that students who come to the law school with a good linguistic training, especially those who have had good training in the classics, other things being equal, have an advantage and do better work from the beginning. The law demands a clearness and accuracy in thinking which is only to be attained in connection with accuracy in the use and in the interpretation of language. While courses in economics, sociology, politics and related subjects undoubtedly have great value for the student of law, those who come solely or chiefly with this preparation do not show to advantage as a rule in comparison with those who have been trained to examine a written text critically and to express themselves clearly and accurately in a strange tongue. Consequently, when a committee of the Association of American Law Schools was called upon some years ago to recommend a standard course for those preparing for law, while the desirability of courses in history, economics and social and political science was recognized, there was a general agreement on the part of the members of the committee in the wish that law students might all be trained first in languages, especially the classical languages, and mathematics, with as much of the subjects more directly related to law as could be filled in.

For Dean Pound's address see page 46.

## EZRA R. THAYER

Former Dean of the Law School, Harvard University

Note: The following letter, written to Professor Cowles of Amherst by the late Dean Thayer, has been sent by his successor, Dean Roscoe Pound.

November 19, 1910.

Professor William L. Cowles,
Amherst, Mass.

My dear Professor Cowles:

Many thanks for your letter, to which I am very glad to reply.

What I said the other night about the classics was a digression, made *ex tempore,* and I have no notes of it. It was an expression of the following views, which are the result of practical experience.

Apart from the special and obvious need of studying Latin in preparing for the law, in order to understand the early law Latin and the Latin phrases and maxims which constantly recur in the law books, the study of the classics seems to me particularly adapted to develop qualities which are very necessary to the practicing lawyer. The business of analysis and mental detective work is a large part of a lawyer's activity. In the unravelling of complicated combinations of fact and in solving problems darkened by falsehood and errors of memory he is continually making, verifying and discarding a series of working hypotheses. I have often observed that the mental processes involved in such work are substantially identical with those called into play by the task of translating at sight a page of Latin or Greek.

Even more important, perhaps, is the relation of such study to the neat and exact use of language. It is of

course the lawyer's special duty not only to reason soundly but to express his ideas with clearness and accuracy. It is vital, therefore, that he should know how to select the very word which will fit his thought. I do not see how a student could better train himself in this choice of words than by translating Latin into English and English into Latin.

As I said to the young men the other night, I gave myself largely to the classics during the first two years of my college course, but abandoned them at the end of my sophomore year for political economy and history. I did this because I thought it would fit me better for the law. Much as I enjoyed and profited by the courses which I took in my junior and senior years, I believe that if I were making the choice over again I should not give up the classics.

SIMEON E. BALDWIN

Former President American Bar Association
Chief Justice Supreme Court of Errors, of Connecticut, 1907-1910
Governor of Connecticut, 1911-1915
Yale University

No one gets the best out of a liberal education whom it has not helped to express himself clearly in written words. The faculty of doing this is native to some men. To the less fortunate I believe that nothing can give more aid in acquiring it than practice in turning the terms and texture of a Greek or Latin passage into those of their own language, or a passage expressed in that into Greek or Latin.

I made it a practice for thirty years to read a few lines of Greek daily, discontinuing it only when I found that it was beginning to strain my eyes. In my profession, that of law, some knowledge of Latin is indispens-

able, and sufficient knowledge of it to make reading the *Corpus Juris Civilis* an easy task is a very desirable acquisition. No man can be called an accomplished lawyer who has not some acquaintance with comparative law and cannot compare the jurisprudence of his State or country not only with that of other states or countries of his own time, but with that of ancient European governments. The Roman law is the source of much more than was once thought of in modern American law. It is well worth studying at its fountain head.

Nor can the history or literature of any peoples be ever really understood by one wholly ignorant of their language. He has to take too much on trust. The great works of Greece and Rome introduce us into a new world, and set up standards of comparison that are not seldom of more worth to a philosophic student than those accepted in modern nations, since they explain why these have their present form.

### S. S. Gregory

President of American Bar Association, 1911
Chicago

I am of opinion that no study of the classics is of any practical value to the average man of business. In fact, all education beyond a high school education is, in so far as the practical results are concerned, time wasted. Narrowness is frequently an important element in pecuniary success. A selfish and narrow view is the common trait of the successful business man.

For the professional man who is highly ambitious of professional success, a study of the classics has no little practical value. In that I am familiar with no method by which the control and mastery of the English lan-

guage can be acquired equal to that of the prolonged study of both Latin and Greek.

The minute you inquire as to the practical value of a liberal education or any of its constituents, you in a measure debase the cause of education. Nothing in my judgment is more demoralizing than to put constantly before the ingenuous youth of the nation the question whether or not the study of this, that or the other subject will enable them the better to earn a living or to make money. You might just as well discuss with them whether it pays to be patriotic, self sacrificing and heroic. Generally speaking I think these qualities are far less likely to contribute to their pecuniary success than many that are more sordid and less admirable. Therefore, I regard it as highly desirable that young men should study things which are of no practical value to them if they seek and are worthy of a liberal education.

There are, so far as I know, no studies which in after life afford educated and cultivated men so much pleasure as the study of the ancient classics. *Forsan et haec olim meminisse juvabit.* I quote from memory and possibly my memory is inaccurate, as I knew small Latin and less Greek. To read Homer, Virgil, Cicero, Horace, Tacitus and the Greek tragedies in the original is in itself, in my judgment, an indispensable part of a liberal education. I do not speak of mental discipline, for I have always thought it a false notion that it was a part of a college education to discipline the mind by a sort of mental gymnastics. Rather does it open and expand the mind to great variety of different topics and thus open the avenues of information and enable a man to find a place in orderly arrangement for that which

he acquires through life. The education which he gets within college walls is not alone sufficient to make him a broad minded, high minded, intelligent and cultivated man. There he is at the gateway. All that he gets of mental training and discipline is undoubtedly valuable, but the broadening of his mental vision and spiritual inspiration which he should receive from his instructors —now, alas, almost entirely wanting—are far more important.

PETER W. MELDRIM

President American Bar Association, 1914
Judge in Eastern Judicial Circuit
Savannah, Ga.

I am thoroughly in sympathy with the objects of your conference and regret very much that the extraordinary pressure on me has been such that I have not been able to put in proper form my very earnest sympathy for your work.

THEODORE S. WOOLSEY

Professor of International Law, Emeritus
Yale University

If you ask for a word or two from me as to the value of *some* classical study in the working life of the average man, I should reply that only the exceptional man, such a man as Lincoln for instance, can use his own language skillfully without it.

The insight into roots, into shades of meaning and cadences of sound, the lovely and delicate dwelling upon words, which even college Latin gives, make the difference between style and commonplaceness.

HENRY M. BATES
Dean of the Law School, University of Michigan

I believe there is no satisfactory substitute for classical studies in the development of the cultivated man. The training which such studies give in precision and elegance in the use of language and in the accurate delimitation of similar ideas or concepts the one from the other is certainly unsurpassed and in my judgment unequalled by studies of any other kind. With reference to my own special field, legal education, I am convinced, as I think are the majority of my colleagues, that the study of the classical languages, Greek and Latin, is of the greatest value. The mental processes of the student who is translating from one language to another are similar to those of the lawyer engaged in interpreting a Supreme Court opinion or a statute; and by reason of their logical and complete organization and structure Latin and Greek are much better for this purpose than any other language. There is of course the additional advantage to the law student who has studied Latin that he has thereby become familiar with a great many words which have beeome part of the terminology of the English common law. If I could have my way, I would require all prospective law students to study both Latin and Greek.

WILLIAM CAREY JONES
Professor of Jurisprudence, University of California

The intending student of law is advised to pursue a full classical curriculum. If such a course is not attainable, the student is advised to take as thorough a course in Latin as possible. Such study will be profitable to

him in many ways, and will open up the possibility of scholarly research in civil law and jurisprudence in the graduate years.

### Oliver Wendell Holmes

Associate Justice, Supreme Court of the United States

On the question concerning the value of the classics in liberal education I can have no doubt, if they should be studied in the same way in which many of us have learned to read French or German, without much bother over the rules of grammar as rules to be learned but with an effort to associate the words with the things they signify and to practice translation as soon and as much as may be. Latin is of considerable practical importance in itself and also as the foundation of so many modern languages, and of so many words in languages not founded upon it. Greek is less important in itself, but opens the door to pleasures not to be had without it, as no poet, at least, can be appreciated except in his own words. It seems to me that people who think they are enjoying Euripides, for instance, in the charming translations that we know, probably are getting their pleasure from a modern atmosphere that is precisely what is not in the original. And further, when one considers the relation of modern literatures to those of Greece and Rome, it seems obvious that they cannot be fully felt without some acquaintance with their ancestors. I think the trouble has been (I cannot speak about the present) that the energy of pupils has been exhausted upon rules rather than upon content. A superficial knowledge of structure is enough for the purpose for which it is desirable to teach Latin and Greek to the run of boys.

CHARLES M. HOUGH
United States Circuit Judge
New York City

The value of an opinion is usually gauged by the giver's opportunities, and mine have been almost wholly confined to preparing, delivering and listening to arguments on matters of law and the study of evidence, often given by experts in applied science.

Many useful men are mentally incapable of anything but routine, and such men will never assimilate more than vocational drill.

As to thinking men, it is the result of my observation that those whose early discipline was classical, who learned to use English with Greek and Latin in the near background, and who therefore (perhaps unconsciously) regard language as a living and growing thing, are usually able to present their thoughts with a precision and clarity unknown to those whose corresponding studies restricted them to science or permitted a selection of modern courses attractive to the youthful mind.

JOHN B. WINSLOW
Justice of the Supreme Court of Wisconsin

While I cannot justly claim to have "kept up" my classics, I have always felt that my knowledge of the classics acquired in the old fashioned college course has been of great service to me in my writing as it has been a pleasure and a help to me in many ways. I would not be without it.

### HENRY C. CONRAD

Associate Judge, Supreme Court of Delaware

To those who purpose to enter the learned professions the study of the classics I deem most important, I would say almost indispensable. I know of nothing more valuable as a mental drill than the study of Latin and Greek, and so recommend a course embracing those languages to those who are intent upon mind development and whose after life is to be spent in mental rather than physical pursuits.

### JAMES M. MORTON, JR.

United States District Judge, Massachusetts

I do not see how anybody can use English well without some knowledge of Latin.

### JAMES R. MACFARLANE

Judge in Court of Common Pleas
Pittsburgh

My view of the practical value of Latin in the profession of the law is briefly this: The law demands exact expression. The lawyer and judge must read, interpret and define with certainty. The greatest jurists have been men whose ability and reasoning powers have been highly developed and who have had the power of accurate, concise statement. A course in Latin, aside from the mental discipline it gives, is unquestionably a means to this end. A detail is the fact that the language of the law is largely of Latin derivation. Exceptional men have excelled without a knowledge of any language except their own, but the vast majority need such study to develop what I may call the language sense.

Standard law schools and examining boards recognize this and require Latin as preliminary to the study of the law.

MOORFIELD STOREY
Boston

It is now some fifty years since I graduated from college after giving a considerable number of years to classical study, and I can say that I have never regretted what I learned by that study.

Greek and Latin seem to me of great value in two ways. In the first place they enable a man who is called upon to speak and write to use his words with precision and to make his meaning clear by using the right word in the right place. The knowledge of classics also enables a man to understand what others say, to appreciate the exact shade of meaning which the writer seeks to convey and to understand readily much which to one who is not familiar with those languages is difficult of comprehension.

In the next place our views on contemporary questions are inevitably affected by our own prejudices, interests and associations, but the study of the classics carries us into an atmosphere so far removed from our own that we can appreciate the lessons of history, learn to weigh the motives which control a man's action, and from the experience of other men in remote times learn to recognize the dangers which beset our own path.

I have often thought that it would be possible to take the history of Rome from the time of the Punic War down to the fall of the Republic and parallel every step in the progress with a step in our own history. Ferrero has done it, and I cannot help feeling that if we were all

familiar with the history of Greece and Rome we should detect many a rock and shoal which now escapes our notice.

W. K. RICHARDSON
Boston

In my opinion the study of both Latin and Greek is indispensable to a liberal education; and I mean such study as will ensure considerable facility not only in reading ordinary Greek and Latin authors but in writing Latin and Greek prose.

The first result is to ensure greater clearness and compactness in writing English.

Second, the classical authors cannot be fully enjoyed and appreciated except when studied in the original.

Third, a large part of modern literature, from the time of the Renaissance, is unintelligible without a knowledge of the classics.

FRANCIS LYNDE STETSON
New York City

The test of the trained mind is to be found in its response to a call for its expression in language. And, excepting in the cases of rare occurrence like those of Abraham Lincoln, the ability to express one's mind in proper language can be developed best, and generally only, by the patient and persistent study of the classics. This consideration alone, apart from the recognition of the culture value of studies in classic art and archaeology, commands my complete support of classical studies, even for the man desirous of success in practical affairs.

E. Parmalee Prentice
New York City

I believe it can be shown:

That classical studies teach precision of expression, and the relation of words in sentences; that they lead toward accurate thought and that they have been on the whole the best teachers of English style.

That if a knowledge of modern languages brings culture we should expect to find the highest exponents of that culture in restaurant waiters. I believe in the culture which comes from a knowledge of events sufficiently intimate to lead a man to place his own interpretation upon history. Classical studies do in fact promote this knowledge of the Greek democracies and of the times of Caesar in Rome, and they furnish a background for an understanding of the time of Cromwell in England and the present in America. So far as I know this work has never been so well accomplished as it has been through classical studies.

That disinterested public service is not taught by any educational system directed solely to utilitarian ends. Most persons must devote their energies to earning money, but we can teach everybody that civilization rests upon moral forces, that learning has intrinsic value and that though learning is a luxury for the individual it is a necessity for the state.

Thomas Thacher
New York City

As a lawyer I have often looked back and inquired what studies had especially contributed to my fitness for my work, such as it is; and I have always fixed on

two, one of which—and perhaps the more important—is the study of the Greek and Latin languages. A large part of a lawyer's work has to do with the use of language. That it is a most important part will be realized upon a moment's reflection in regard to wills, contracts and statutes, from the standpoint of him who draws such instruments and from that of him who reads them and has to determine their meaning; and also in regard to writing opinions from the bench or otherwise, and determining the meaning of opinions written by others. Take down at random a volume of reports and you will probably find that a majority of the cases turn upon questions merely as to the meaning of written words. Ability to use words so as to convey a given meaning clearly and to see clearly the meaning of the words written by others is, I believe, more important to the lawyer than ability in any other line. And perhaps I might add that it is more unusual. And yet, so far as I know, scarcely any attention is paid to it in any scheme of law school education. Whatever of such ability I have is due, so far as I can see, chiefly to the study of Greek and Latin, the analytical study of words and sentences in these languages and the work of translating from them into English or putting English into these languages. Need I elaborate to convey my thought? In this study I got the chief part of my knowledge of language, the chief part of my equipment—supplemented, of course, by practice since—for the large and important part of a lawyer's work to which I have referred.

DRURY W. COOPER
New York City

Based upon an experience of nearly twenty years in the preparation and trial of cases involving electrical, mechanical and other physical principles and their industrial applications, and upon acquaintance and frequent contact with most of the leading lawyers who have been engaged in trying patent and similar cases, my opinion is that the classical education, with its backbone of Greek and Latin, affords better preparation for success in this highly specialized branch of the legal profession than does a course whose centre is the sciences.

LAWRENCE E. SEXTON
New York City

Of course I believe in the study of Latin and Greek, in the study of the structure as well as the literature of those languages, and in the histories of those two great peoples who developed them. I feel, too, that no one can be a well educated man, in the best sense, who lacks that training, however proficient he may be in other learning. That a training in the classics adds to one's efficiency, whatever may be his profession or vocation in life, I do not doubt. And not the least of the advantages thereof is the pleasure, the intellectual pleasure, it opens up to him whose fortune it has been to possess it.

In these days of worldwide wars, involving the slaughter of millions of our fellow beings, the wanton destruction of historical monuments, the tearing down and building up of governments, when misguided men led by desperate rulers are outraging civilization and

terrorizing humanity; at a time when we too have been drawn into the great conflict in defence and furtherance of those great principles of liberty and humanity which are more precious than life itself, it is heartening to find that there are still those, few perhaps in numbers but steadfast of purpose, who appreciate the necessity, for the sake of those who will come after them, of keeping lighted the lamps of that higher scholarship and more enlightened vision which have illumined the world for so many centuries and which must not be permitted to die out.

M. Taylor Pyne
Princeton, N. J.

I consider myself fortunate in having begun the study of Latin when but ten years old, for not only has the vocabulary remained far more firmly fixed than it would had I taken it up some years later as do most American boys, but the grammar also came to me as naturally as English grammar. Latin is to me a living language to use, not merely for the purpose of translating into English. As a result it became comparatively easy to read and understand such Romance languages as Spanish, Italian, Catalan and Portuguese before I had even commenced to study them carefully.

The Latin prosody gave a far quicker and surer ear for both quantity and accent which has been of great value to me in modern languages. Classical history and mythology have enabled me to appreciate the almost innumerable allusions scattered throughout literature and have greatly increased the enjoyment of mediæval and modern writers.

In the law, my own profession, I have found Latin of

great importance not only since so much of the terminology is Latin, but also because the structure of much of our law, especially equity jurisprudence, is based on it. As a reader of mediaeval history, I should have been stopped at the beginning of my inquiries had I not been able to read classic and later Latin.

I regret that I did not take up Greek until some years after beginning Latin and that I unfortunately found it advisable to give it up at the end of sophomore year, for in consequence it has never been to me the living language that Latin is, nor have I retained so full a vocabulary. While I can usually understand the meaning of the host of scientific terms derived from the Greek, yet sometimes I find myself at a loss. I can, therefore, to some extent appreciate the immense difficulty under which any man ignorant of the classics necessarily labors in trying to assimilate the enormous number of Greek words lately incorporated into English, which must appear meaningless to him and have to be learned by rote.

As a university trustee for the past thirty years I have grown more and more convinced of the great importance of the proper study of the classics. I believe also that they should be begun at an earlier age than is usual in America and should be taught from English into Latin, rather than Latin into English. The English public schools with their Greek and Latin verse making have been a potent force in training boys to write fairly good Latin and Greek, and even more, to write pure, virile and melodious English.

In fine I have found the classics, and especially Latin, by far the most valuable of my studies; and, were I to repeat my undergraduate days, I should devote quite as much time to Latin and much more to Greek.

### George Wharton Pepper

Philadelphia

I regard it as indispensable to the effectiveness of a professional man that he should have what for want of a better term may be called "language consciousness." I believe it to be true that in no way can this habit of mind be acquired so well as by the study of Greek.

### J. G. Rosengarten

Philadelphia

I am very earnest in my faith in the need of classical studies, as the ground work of all sound education, and of their practical value.

### Walter George Smith

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Men are educated when they are able to use their mental faculties with facility and accuracy upon any given subject that is presented to them. Perhaps this is the greatest advantage of the study of Greek and Latin, and no exercise has been found more admirably adapted for the purpose.

### Charles Edwin Fox

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The study of Latin, if well done, carries with it a mental disciplining that is no less real than that to be derived from the study of mathematics. Herein lies its chief advantage to the student of law. He comes from his high school or college course to his work upon the text books and case books of law with an ability to concentrate and coordinate that largely had its origin while

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he was developing for himself the problems of Latin syntax and translation.

But the student, having come to be the practitioner, still continues to derive an advantage from his knowledge of Latin that is quite as valuable, even though not so direct, as the one just indicated. It has served to teach him the significance of language, particularly of grammar. There is a certain rigidity and accuracy to Latin; idioms are fewer and well marked. Precise adherence to its well established rules of syntax produces precise results in speech. It is obvious that the practice of law, in large measure, requires a proper appreciation of the correct relation of words and phrases. One's experience with Latin may guide him to a better discrimination in his English phrasing, which to a lawyer is invaluable.

T. B. Stork
Philadelphia

I was for forty years and still am, in fact, a member of a little club called the Horace Club; and it may be interesting to you perhaps to hear some personal reminiscences of the history of this little club, which is quite an historical club in the city of Philadelphia. It was formed by an old lawyer of Philadelphia, the sort of lawyer that Philadelphia used to produce in the old times, of fine literary taste, fine culture, and a man of liberal ideas in every way. The club was formed in the early '70s, and it exists to this day. At first we confined ourselves to Horace, but later we roamed through other phases of Latin literature: Cicero's letters, Pliny's letters, Catullus, Petronius Arbiter, Terence, Tibullus,

Seneca, Lucretius, Lucan's "Pharsalia," and Apuleius's "Golden Ass." I believe in the classics.

### DIMNER BEEBER

President of the Commonwealth Title Insurance and Trust Company
Philadelphia

In view of the slovenly English in which most of the new laws have been framed, it is absolutely essential that lawyers and judges shall be well versed in the classics.

### H. E. SPALDING

Detroit

When I was graduated from the University of Michigan thirty-five years ago I was able to read Greek and Latin at sight fairly well and I have continued the reading of both ever since for my own pleasure. My business has been the practice of law. I have no qualification to judge of the value of classical studies except such as these facts imply.

Aside from disciplinary value and that of an acquaintance with two literatures which so largely enter into the fabric of all modern literature, the principal direct benefit of classical study, as it seems to me, is found in the training which that study if properly conducted gives in the high and difficult art of clear and accurate expression of thought. I speak advisedly when I say that few can state any matter, other than the simplest, in clear, accurate and concise language, and that the lack of this ability accounts for a very large proportion of litigation as well as of other human misunderstandings. In my judgment translation, especially translation at sight, without which no one can escape the slavery

of the dictionary, is far superior to original composition as an instrument for the development of this ability. I may say at the same time, for the sake of emphasis, something often said before, that classical teachers in schools and colleges have been and as I think still are not sufficiently mindful of the importance of this matter. The proper practice of translation materially contributes to the formation of a good English style. Slipshod translation, such as was common when I was in college, and which I incline to think is still not uncommon, materially interferes with the development of the ability to perceive differences in meanings and to understand the force and effect of different forms of expression. Students ordinarily enter college with the most rudimentary ideas of expression. They can neither speak nor write clearly and accurately. Classical studies should correct these faults. As those studies were commonly prosecuted a generation ago they tended to confirm students in habits of slovenly and inaccurate expression and necessarily in corresponding faults of thought.

It is difficult for one to analyze or to state fairly the result of impressions derived from his own experience. A lawyer has to deal with a great variety of affairs and, therefore, to inform himself in many branches of special knowledge. His study is rarely exhaustive, but he should be able readily to acquire and assimilate numerous and complicated facts, to discriminate their values, grasp their relations, discard the irrelevant and insignificant and present the result in proper order and in clear and adequate form. This is the ideal, imperfectly realized by any. But I am convinced that any one with reasonable natural aptitude for languages will find clas-

sical study the best preparation for the study and practice of the law.

I have dwelt on material considerations only. But I hardly need to say what all who have caught any of the spirit of classical literature know well, that the greatest value of the classics is in their power to instruct, inspire and console us in all that part of life that is beyond and above the business of existence.

JOHN M. ZANE

Chicago

The study of the classics I regard as of more importance at the present day than at any other. There never was a time when every man, engineer, doctor, lawyer, business man, so greatly required the classical training as today. All affairs are now, more than ever before, a matter of words—either spoken or written words. And for dealing with words only the classical training, the old fashioned drill in Latin and Greek, can give a man the requisite discipline. Having said this, I pass by the important consideration that the world of thought is part and parcel of the classics, and come purely to their practical, bread and butter advantage. Almost every legal record today is merely a translation of a Latin document. Reading of Latin keeps the attention close, keeps one weighing words, keeps one extracting all the meaning there is in words, keeps one coordinating words to get their fullest effect.

JULIAN P. ALEXANDER

Assistant United States Attorney
Mississippi

. . . But so much for the history of the evolution of

the Latin language as the monument on which our legal maxims and axioms, as well as much of our legal history, are engraved. We might have gone so far as to have disregarded the explanation of the existence of Latin in our legal texts and accept the plain fact that it is there. But its presence is the result of the same considerations and necessities that have preserved it through so many adversities down to the present time.

So then, the advantages of a training in Latin might be said to be those that attend the study of history, as well as of etymology, and so the student of law encounters on every hand phrases and principles carved in Latin and transmitted to him and his age in their original vigor and shades of meaning. Many, he finds, have become so familiar that he adopts them as "naturalized." Actions of *assumpsit, quo warranto,* and upon a *quantum meruit* or *quantum valebat,* writs of *capias* and *subpoena,* pleadings of *nol. pros.* and *pro confesso,* are so familiar that he often loses sight of their original significance. Yet the student must draw upon his knowledge of the Latin to assure himself that he knows the distinction between a summons and a *subpoena,* a *capias,* a warrant and a *mittimus,* between a *habeas corpus ad testificandum* and a *habeas corpus ad satisfaciendum,* between *scire facias, venire facias* and *fieri facias,* and administrators *de bonis non, cum testamento annexo,* and *de son tort.* Is the layman correct when he speaks of "subordination" of perjury? To the Latin students the value and importance of *obiter dicta* in applying the doctrine of *stare decisis* are amply explained within the phrases themselves.

It may be that the student learns his Latin in the study of law. If this fact does not demand that he come

thus already prepared to the study of law, it at least suggests the advantage of doing so. As suggested, if the student is not prepared in Latin he must to some extent become acquainted with its expressions, regardless of his views as to its necessity. If the use of Latin terminology, for example, is cumbersome for the botanist or the pharmacist, the best answer is that its presence in those sciences is undeniable.

## 7. MEDICINE

VICTOR C. VAUGHAN

President American Medical Association 1915
Chairman Committee on Medicine and Hygiene in National Research Council
Dean of the Medical School, University of Michigan

There has been found nowhere a better training for the thinking apparatus of the young than the study of Latin and Greek. Carelessness and superficiality are incompatible with any thorough study of Greek and Latin. The student's observation is sharpened, his perception becomes more delicate and he finds increased pleasure in the intensity with which he seeks fully and correctly to interpret the author's meaning. And this habit of close observation, of attention to detail, of looking for fine distinctions and shades of difference, and the alertness of mind possessed by an individual of this habit will be of inestimable service to him, should he choose medicine for his profession, both in his experimental work in the laboratory and at the bedside of his patient.

For Dean Vaughan's address see page 56.

LEWELLYS F. BARKER
President of American Neurological Association, 1916
Professor of Clinical Medicine, Johns Hopkins University
For Professor Barker's address see page 51.

E. H. BRADFORD
Dean of the Medical School, Harvard University

In view of the fact that our civilization is based so largely on classical thought and tradition, as great familiarity as is possible with the original sources is desirable for every one who can claim to have a broad foundation in his education, not only for his service as a citizen, but also for any calling. There is also no question that a reading knowledge, although slight, places the student more closely in touch with classical thought than anything derived from knowledge obtained through translation alone.

W. W. KEEN
President American Philosophical Society
Philadelphia

As a basis of universal culture the classics stand in an impregnable position. The best thought of the world is there enshrined. He who knows not the classics has missed a great privilege and an unequalled source of inspiration.

WILLIAM SYDNEY THAYER
Professor of Clinical Medicine, Johns Hopkins University

When in the period of so-called secondary education it is proposed to substitute the study of the natural sciences for a good training in the humanities, there is danger of drying up some of the sources from which this

very scientific expansion has sprung, and it seems to me by no means impossible. The study of the classics, an acquaintance with the thoughts and the philosophies of past ages, gives to the student a certain breadth of conception, a stability of mind which is difficult to obtain in another way. A familiarity with Greek and Latin literature is an accomplishment which means much to the man who would devote himself to any branch of art or science or history. One may search long among the truly great names in medicine for one whose training has been devoid of this vital link between the far reaching radicles of the past and what we are pleased to regard as the flowering branches of today. Greek and Latin are far from dead languages to the Continental student. They are dead to us because they are taught us as dead. With methods of teaching in our secondary schools equal to those prevailing in England and on the Continent, 'twould be an easy matter, in a materially shorter period, to give our boys an infinitely broader education than they now receive. There should be much less complaint of time wasted, much less ground for suggesting the abandonment of the study of branches which are invaluable to any scholarly minded man.

But there is yet another side of the question which has hardly been sufficiently emphasized, a side of the question which must come strongly to one's mind when he considers the general education of many of the men who are entering even our better schools of medicine, a point of view which has been especially insisted upon by a recent French observer. A large part of the success and usefulness of the practitioner of medicine depends upon the influence which he exerts upon his pa-

tients; upon the confidence which he infuses; upon his power to explain, to persuade, to inspire. It can scarcely be denied that these powers are more easily wielded by the man of general culture and education than by one of uncouth manner and untrained speech, however brilliant may be his accomplishments in the field of exact science. I can do no better than quote the words of Professor Lemoine (Congrès Française de médecine. VI Session. Paris, 1902 8°, T. II., p. xli.):

"Indeed the moral influence which he [the physician] is capable of exercising upon the patient and which he exercises to an ever increasing degree with his intellectual superiority, is one of the most important of therapeutic agents. One heals by words at least as much as by drugs, but one must know how to say these words and to exercise a sufficient moral authority, that they may bring conviction to the patient and carry the full weight of suggestion which is intended. Were it but for this reason I shall range myself among those who demand the maintenance of extensive classical studies as a preparation for those of medicine, for the best means to uphold the prestige of the physician is still to raise him as far as possible above his contemporaries."

These words express, it seems to me, a large measure of truth. May it not be that in the tendency to the neglect of the humanities we are taking a false step? May it not be that if on the other hand we teach them earlier and better we shall find in the end that no essential time is lost, while we shall gain for medicine men not only with minds abler to grasp the larger and broader problems, but with materially fuller powers for carrying on the humbler but no less important duties of the practitioner of medicine?

H. W. E. KNOWER

Professor of Anatomy in the Medical School, University of Cincinnati

As far as my experience goes with students entering the medical school it seems clear that the freedom of election which has been permitted them in the high school and in college has been a serious disadvantage to their preparation for medicine. Entirely too large a proportion of these students have had an insufficient amount of Latin. Their work here and in English has too often been superficial. In mathematics very few have secured a satisfactory working knowledge.

The average man lacks a systematic method of thought, and exhibits no near approach to the mathematical precision required in science, and more needed every day in ordinary life. A number of courses in school will teach observation, memorizing or description, as geography, history or literature; but in biology, anatomy or physiology it is necessary in addition to be able to draw accurate, safe conclusions from collected data. The constructive process in an introduction requires training in mathematical reasoning. This is not realized by most persons unfamiliar with the modern demands of science and the subjects which are dependent on her results.

If medical sciences are to be taught as anything more than mere memory work, we must insist on our students being previously trained in mathematics, and much more rigidly trained than they now seem to be. Their method of thought is now apt to be diffuse, unsystematic and inconclusive; apparently because of the loose way in which they have been hurried through a minimum of both Latin and mathematics. These sub-

jects have always represented substantial mental discipline, besides forming a necessary part of our fundamental equipment. I believe that more time and more thorough method are needed for both Latin and mathematics in the high school.

W. J. MAYO
Surgeon
Rochester, Minn.

A moderate classical education is essential to a proper understanding of the sciences, and is necessary for clear, accurate and incisive recording and transmission of scientific thought.

CHARLES H. MAYO
President of American Medical Association
Surgeon
Rochester, Minn.

The enormous increase in the world's knowledge which has developed within the last fifty years makes it impossible for the educated man to become master of the same proportion of the sum total of knowledge as formerly. We must now specialize in education as in all other lines of endeavor, though the best education must be constituted of a liberal as well as a practical training. I believe that four years of Latin should be sufficient preparation in the classics for the study of the scientific professions.

JOHN A. WYETH
President of Medical Board of the Polyclinic Hospital
New York City

I am altogether in favor of the classics, and think a fair degree of perfection in these should be a requirement for graduation from our colleges.

As to my own profession, I hold that no one should be admitted to a medical school who has not a classical education. I quote from an address made by me at Louisville in 1890:

"Latin is essential to intelligent medical training, and the decline of Greek in the classical curriculum is certainly, as far as medicine is concerned, a great mistake. In Dunglison's medical dictionary there are approximately forty-one thousand words, of which twenty thousand are derived from the Greek and twenty-one thousand from the Latin, French, Saxon and English."

### Charles L. Dana

New York City

For about fifteen years I used to examine thirty or more candidates for the position of interne at Bellevue Hospital. The candidates all had to be graduates in medicine. I found as the result of this experience that the men who had had an A.B. degree almost invariably passed better examinations and later made better internes than those who had degrees in science or than those who had no college training. This conclusion was, I think, shared with me by the other members of the examining committee.

In my experience through life in dealing with medical men during the last thirty years, I can say with confidence that the men who have been educated in colleges and received the A.B. degree have been much the most intelligent and satisfactory and successful. Of course this is only the personal experience of one who may have some bias in the matter.

While living in Venice four years ago I was making

some investigations of a literary and scientific character, and spent my days in the library of St. Mark. I there became tremendously impressed with the fact all the learning and activities of Europe from the period of the Middle Ages to the beginning of the nineteenth century was practically in Latin; and there was an immense volume of literature practically inaccessible except to those who are familiar with that tongue.

Almost every one who is working hard in the pursuit of business or profession needs some indoor recreation. Some take it in cards, in billiards, in various forms of social intercourse, etc. I have found that the puzzling out of Latin, especially Latin poetry, was more amusing than card playing or the study of the problems of chess or of backgammon, etc. In other words, reading Latin, and the same would be true probably of Greek, furnishes a sort of perpetual resource to those who are interested in working out the intricacies of a rather difficult tongue and who desire to get reward by the final feeling of appreciation of a beautiful piece of literature.

From the point of view of psychology and education I know absolutely, as much as one can know absolutely, that learning Latin is an excellent method of training and developing the mental faculties, involving attention with reward, memory, judgment and knowledge of the structure of language.

ALEXANDER DUANE
New York City

I am very strongly of the opinion that a thorough course of Latin and Greek furnishes the best preparation not only for the so-called learned professions, law, medicine and theology, but also for scientific and tech-

nical pursuits and for business. Such study furnishes an effectual remedy against the narrowness of view and the limitation of ideas that an exclusively technical and vocational training begets; and by drilling and sharpening the mental faculties it enables the student to acquire much more readily than would otherwise be possible the knowledge that his calling, whatever it may be, demands. Furthermore, because of the grasp of general principles and the habit of logical thinking that it imparts, it makes him an abler and more useful man. It thus better fits him not only for his special business but also for the more general concerns of life. And it does so better than any other educational scheme yet devised. Comparative tests, extending now over many years, have proved this quite conclusively.

Personally, then, I feel that in the training of the medical man some things usually thought unnecessary should be included as of major importance. I think the physician should have no less than fifty months of actual work in Latin, and should have read Cicero, Virgil and Horace. I believe that every physician should have devoted at least thirty-six months of actual work to Greek, and should have read Homer, the dramatists and Plato in the original. The Greeks were by far the most artistic and the most intellectual people the world has ever seen; their literature represented the highest development of ancient thought, and their language was a marvellously delicate and powerful instrument for the expression of that thought. The study of that language and of the literature in the original, bringing us into intimate contact with the Greek mind, fulfills better than anything that has yet been devised the prime objects of education—information, mental culture, men-

the Latin language as the monument on which our legal maxims and axioms, as well as much of our legal history, are engraved. We might have gone so far as to have disregarded the explanation of the existence of Latin in our legal texts and accept the plain fact that it is there. But its presence is the result of the same considerations and necessities that have preserved it through so many adversities down to the present time.

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H. W. E. KNOWER

Professor of Anatomy in the Medical School, University of Cincinnati

As far as my experience goes with students entering the medical school it seems clear that the freedom of election which has been permitted them in the high school and in college has been a serious disadvantage to their preparation for medicine. Entirely too large a proportion of these students have had an insufficient amount of Latin. Their work here and in English has too often been superficial. In mathematics very few have secured a satisfactory working knowledge.

The average man lacks a systematic method of thought, and exhibits no near approach to the mathematical precision required in science, and more needed every day in ordinary life. A number of courses in school will teach observation, memorizing or description, as geography, history or literature; but in biology, anatomy or physiology it is necessary in addition to be able to draw accurate, safe conclusions from collected data. The constructive process in an introduction requires training in mathematical reasoning. This is not realized by most persons unfamiliar with the modern demands of science and the subjects which are dependent on her results.

If medical sciences are to be taught as anything more than mere memory work, we must insist on our students being previously trained in mathematics, and much more rigidly trained than they now seem to be. Their method of thought is now apt to be diffuse, unsystematic and inconclusive; apparently because of the loose way in which they have been hurried through a minimum of both Latin and mathematics. These sub-

jects have always represented substantial mental discipline, besides forming a necessary part of our fundamental equipment. I believe that more time and more thorough method are needed for both Latin and mathematics in the high school.

W. J. MAYO
Surgeon
Rochester, Minn.

A moderate classical education is essential to a proper understanding of the sciences, and is necessary for clear, accurate and incisive recording and transmission of scientific thought.

CHARLES H. MAYO
President of American Medical Association
Surgeon
Rochester, Minn.

The enormous increase in the world's knowledge which has developed within the last fifty years makes it impossible for the educated man to become master of the same proportion of the sum total of knowledge as formerly. We must now specialize in education as in all other lines of endeavor, though the best education must be constituted of a liberal as well as a practical training. I believe that four years of Latin should be sufficient preparation in the classics for the study of the scientific professions.

JOHN A. WYETH
President of Medical Board of the Polyclinic Hospital
New York City

I am altogether in favor of the classics, and think a fair degree of perfection in these should be a requirement for graduation from our colleges.

As to my own profession, I hold that no one should be admitted to a medical school who has not a classical education. I quote from an address made by me at Louisville in 1890:

"Latin is essential to intelligent medical training, and the decline of Greek in the classical curriculum is certainly, as far as medicine is concerned, a great mistake. In Dunglison's medical dictionary there are approximately forty-one thousand words, of which twenty thousand are derived from the Greek and twenty-one thousand from the Latin, French, Saxon and English."

CHARLES L. DANA
New York City

For about fifteen years I used to examine thirty or more candidates for the position of interne at Bellevue Hospital. The candidates all had to be graduates in medicine. I found as the result of this experience that the men who had had an A.B. degree almost invariably passed better examinations and later made better internes than those who had degrees in science or than those who had no college training. This conclusion was, I think, shared with me by the other members of the examining committee.

In my experience through life in dealing with medical men during the last thirty years, I can say with confidence that the men who have been educated in colleges and received the A.B. degree have been much the most intelligent and satisfactory and successful. Of course this is only the personal experience of one who may have some bias in the matter.

While living in Venice four years ago I was making

some investigations of a literary and scientific character, and spent my days in the library of St. Mark. I there became tremendously impressed with the fact all the learning and activities of Europe from the period of the Middle Ages to the beginning of the nineteenth century was practically in Latin; and there was an immense volume of literature practically inaccessible except to those who are familiar with that tongue.

Almost every one who is working hard in the pursuit of business or profession needs some indoor recreation. Some take it in cards, in billiards, in various forms of social intercourse, etc. I have found that the puzzling out of Latin, especially Latin poetry, was more amusing than card playing or the study of the problems of chess or of backgammon, etc. In other words, reading Latin, and the same would be true probably of Greek, furnishes a sort of perpetual resource to those who are interested in working out the intricacies of a rather difficult tongue and who desire to get reward by the final feeling of appreciation of a beautiful piece of literature.

From the point of view of psychology and education I know absolutely, as much as one can know absolutely, that learning Latin is an excellent method of training and developing the mental faculties, involving attention with reward, memory, judgment and knowledge of the structure of language.

ALEXANDER DUANE
New York City

I am very strongly of the opinion that a thorough course of Latin and Greek furnishes the best preparation not only for the so-called learned professions, law, medicine and theology, but also for scientific and tech-

nical pursuits and for business. Such study furnishes an effectual remedy against the narrowness of view and the limitation of ideas that an exclusively technical and vocational training begets; and by drilling and sharpening the mental faculties it enables the student to acquire much more readily than would otherwise be possible the knowledge that his calling, whatever it may be, demands. Furthermore, because of the grasp of general principles and the habit of logical thinking that it imparts, it makes him an abler and more useful man. It thus better fits him not only for his special business but also for the more general concerns of life. And it does so better than any other educational scheme yet devised. Comparative tests, extending now over many years, have proved this quite conclusively.

Personally, then, I feel that in the training of the medical man some things usually thought unnecessary should be included as of major importance. I think the physician should have no less than fifty months of actual work in Latin, and should have read Cicero, Virgil and Horace. I believe that every physician should have devoted at least thirty-six months of actual work to Greek, and should have read Homer, the dramatists and Plato in the original. The Greeks were by far the most artistic and the most intellectual people the world has ever seen; their literature represented the highest development of ancient thought, and their language was a marvellously delicate and powerful instrument for the expression of that thought. The study of that language and of the literature in the original, bringing us into intimate contact with the Greek mind, fulfills better than anything that has yet been devised the prime objects of education—information, mental culture, men-

tal discipline and the promotion of high ideals. There is, indeed, no greater training for the mind than is furnished by the study of the Greek language and the translation of Greek originals; and, the Bible and Shakespeare apart, there is no more potent means of mental culture and spiritual uplift than is furnished by Greek literature. The influence of Athens is as vital today as it was when Macaulay paid his glowing tribute. No educated man, least of all medical men, should ever lose personal touch with the classics.

For my own part I think it is of more importance for me as a physician to have read Euripides than to know the technique of the Wassermann reaction. I believe that it is of greater value to me professionally to have studied Greek than to know German. This opinion, old fashioned and indeed obsolete as it may seem, is based on somewhat extended observation of different educational systems for a good many years, during which I have seen the rise and fall of several fads and have acquired a realizing sense of what one most practical man meant when he said: "Prove [test] all things; hold fast to that which is good." I hold fast to Greek.

JOHN B. DEAVER
Philadelphia

I consider Greek and Latin essential to a physician, particularly Latin.

WILLIAM CAMPBELL POSEY
Philadelphia

Latin is a *sine qua non* to the physician. The formulas of his prescriptions are embodied in that lan-

guage and most early medical writings found expression in it.

Both Greek and Latin give to the physician a culture impossible of acquirement by other means, and the higher a man's culture, the better he is prepared to minister to the needs of his ailing fellows.

## 8. ENGINEERING

GANO DUNN
Former President American Institute of Electrical Engineers
Chairman Committee on Engineering of National Research Council
New York City

I am a strong advocate of classical studies although trained as an engineer in the sciences and modern languages.

E. L. CORTHELL
President American Institute of Consulting Engineers, 1915
New York City

I say here advisedly, and as the result of experience, that I was enabled to attack and solve the problems (engineering or constructive) solely by the discipline of a classical education at Abington, Exeter and Brown University. There is no opinion about this matter; it is a fact that has appeared plainly many times in my life, then and since then. The education outlined above has enabled me to do things that I never could have done without it. It has given me power in my professional work during the last forty-seven years. More than that, it has carried me far afield of engineering and given me worldwide interests along many lines of human activity. What I have said about the real value of a classical education in my own case I can say from per-

sonal knowledge about engineers all over the world where my business and my interests have taken me.

LEWIS BUCKLEY STILLWELL
Member of National Research Council
Former President of American Institute of Electrical Engineers
New York City

For Mr. Stillwell's address see page 70.

HENRY S. DRINKER
President of Lehigh University

For President Drinker's statement see page 175.

GEORGE R. CHATBURN
President of The Society for Promotion of Engineering Education
Professor of Applied Mechanics, University of Nebraska

This is written by one who is not a classical scholar. In my college courses I studied German and French. My classical training consists of a short course in the high school; translating since leaving school, for my own pleasure, Caesar and Cicero; and the reading of translations of the classics. My knowledge of Greek is much less. I have therefore only a limited field of classical experience. But notwithstanding, the classics have been almost daily of practical value to me.

FREDERIC L. BISHOP
Professor of Physics, Dean of the School of Engineering
University of Pittsburgh
Secretary of The Society for the Promotion of Engineering Education

I am not only in favor of students in high schools who intend to enter engineering schools studying Latin, but my experience is that it prepares them better for the study of English and other culture subjects, so im-

portant to engineers of today, than other subjects which students often take.

ROBERT H. FERNALD
Professor of Mechanical Engineering, University of Pennsylvania

There is no question that a knowledge of Latin and Greek is of appreciable value from the broadest educational standpoint. Besides a knowledge of the languages, a student adds greatly to his fundamental store of the knowledge of history and art and has a much fuller understanding of the peoples of the world, to say nothing of the more direct value due to an increased appreciation of and a more ready use of our native tongue. I believe that in general the broader gauge engineers recognize fully the cultural value of these subjects.

MORTIMER E. COOLEY
Dean of College of Engineering, University of Michigan

With a knowledge of Latin, Spanish and Portuguese can be learned quickly and Latin can very properly be considered a preparation for them. In recognition of this we give Spanish credit in our College of Engineering to those who have had three or more years of Latin, and require only a year of work in Spanish to complete our requirements in modern languages.

We also include Greek in our list of entrance requirements here, and I wish every engineer had the time to take it. Looking back over our alumni, I am inclined to believe that those who have an A.B. degree in the classics have really shown greater brilliancy than others.

One more thought comes to me, namely, that the en-

gineer of the future is to have vastly more to do in fields where training in the classics will be important. The country is going to need more and more men of vision to handle the great problems of public relations.

GEORGE W. PATTERSON
Professor of Electrical Engineering, University of Michigan

With a retrospect of twenty years, it seems to me that I am warranted in saying that I could have better spared any other course that I took in high school than the Latin. If something must have gone, if I could have taken but three-fourths of the subjects that I took, the Latin would be first and foremost, the one thing that would not have been left out.

HERBERT C. SADLER
Professor of Marine Engineering, University of Michigan

As a means of inculcating ideas of exactness the study of Greek and Latin is *facile princeps*.

MILO C. KETCHAM
Professor of Civil Engineering, Dean of the College of Engineering
University of Colorado

At the last meeting of the Society for the Promotion of Engineering Education, held at Princeton, N. J., in June, 1914, the council, consisting of about thirty of the most prominent engineering educators, voted unanimously in favor of the classical or English high school course as a preparation for an engineering course. It was the opinion of those present that the full four years of a high school course should be given to a study of the classics, literature, history, elementary science and mathematics.

### L. E. Akeley

Professor of Physics
Dean of College of Engineering, University of South Dakota

The future engineer needs to learn to think during a formative period some years antedating his opportunity of acquiring that technical information that is to constitute the material of his thinking as an engineer. The engineer as a thinker is made during the high school period. To work out the meaning of a Greek or Latin sentence requires all the mental process of logical induction, deduction, of drawing conclusions from a mass of facts, and of insight, that are used in the solution of a complex problem in electrical engineering.

### J. Maughs Brown

Professor of Civil Engineering, University of South Dakota

It is on the part the study of the classics has in producing the power an engineer must have that I wish to lay emphasis. The foundation stones of accuracy, efficiency and ability to reason, upon which power must be built, can be shaped by the study of the ancient languages as well as by mathematics. These languages which require a close attention to detail and precision of interpretation, followed by close reasoning, train the mind of the student along the lines he must later follow in his professional work. The value to us is that we are taught how to think. Thought properly controlled is power.

### Charles P. Steinmetz

Consulting Engineer
General Electric Company

It is my opinion that this neglect of the classics is one of the most serious mistakes of modern education,

and that the study of the classics is very important and valuable, and more so in the education of the engineer than in most other professions, for the reason that the vocation of an engineer is specially liable to make the man one-sided. . . . It is true that the classics are not necessary if the aim is to fit the student to ply the trade of engineer, as one plies that of the plumber or the boiler maker, and the world, especially the United States, is full of such men, who have learned merely the trade of engineer.

F. C. ROBERTS
Consulting Engineer
Philadelphia

Imagination, guided by constructive thought and logical reasoning in the application of science, is fundamental to success in the practice of the profession of engineering. The discoveries of science are constantly opening new fields of engineering effort, wherein the vision and dreams of today become the realities of tomorrow. To imagine, to visualize and by the application of human knowledge to create that which adds to man's power and control in utilizing and directing the resources of nature is no mean task. It is a task that requires a well trained mind and a nicely regulated judgment; characteristics probable as the result of a broad and liberal education and improbable as the consequence of a purely technical education. Latin is regarded, and rightly so, as one of the necessities of a broad and liberal education.

MORRIS KNOWLES
Civil Engineer
Pittsburgh

I am one who has not had the chance of a liberal education in classical studies and wish to express the opinion that for the engineer who wishes to mould public opinion and accomplish large things in the world (in addition to the advantage of such background in the fulfillment of one's duties as a citizen) it is important that one should have had such opportunities. It is promising much that there is a return to the idea of including liberal subjects in the curricula of engineering schools.

## 9. PHYSICAL AND NATURAL SCIENCES

ERNEST W. BROWN
President of the American Mathematical Society
Professor of Mathematics, Yale University

I am afraid that what I can contribute on the question of the classics is of little value. In one sense I regard them on the same plane with mathematics, "the prince of all [studies] and therefore the servant of all." (The exact quotation escapes me). To one who like myself has had the English school training with but few natural gifts for the study of languages or literature, they have at least helped in realizing the value of the finer shades of thought and of their expression in words. This training went far enough to produce a critical attitude in the writing of English, but failed to produce the excellence of style which frequently characterized the writings of those who made a special study of the classics. It is difficult for me to imagine a good English scholar who is not a fair classical student.

GEORGE ELLERY HALE

Director Mount Wilson Solar Observatory, California
Foreign Secretary National Academy of Sciences
Chairman National Research Council
Washington

I wish it were possible for every student to be thoroughly grounded in the classics and to have the great advantage of a broad acquaintance with the civilization and literature of Greece and Rome. Nevertheless I recognize that under present conditions this is impossible and that even those students who do take classical courses too often fail to learn the languages sufficiently well to profit greatly by their study. The object in view, as I see it, is not the mechanism of a language, though even the details of grammar may become interesting if taught with reference to their bearing on the evolution of the race.

In the case of those who do not have the opportunity or desire to study the classics in the original I should be quite willing to acquaint them with Greek literature through the aid of Jowett and other great translators. In fact I heartily believe in doing this for the benefit of students in the B.Sc. and B.Litt. courses, who otherwise would fail to have any conception of ancient times. On the other hand, I recognize that neither Plato nor Homer can be translated without becoming in some measure Jowett or Chapman. I shall never forget my surprise when first reading some of the "Inferno" in Italian. I had no conception of the extreme beauty of the original until, aided by a most superficial acquaintance with the language, I glimpsed Dante himself through his sonorous lines.

Faced on the one hand with the impossibility of reach-

ing the heart of classic authors through translations and on the other by the fact that so many students never get far enough in Greek and Latin to *enjoy* their reading, I see no present solution of the difficulty except to offer every facility for classical study and research to those who can make use of them, and never to forget the needs of the man who through limitations of any sort cannot study Greek or Latin. He should be given the best acquaintance with the classic world that English can afford, and through such books as Breasted's "Ancient Times" he should be made to feel how this civilization grew out of simpler elements and how it is thus related to the earlier stages in the earth's evolution studied by the man of science.

EDWIN B. FROST
Member of National Academy of Sciences
Director of the Yerkes Observatory
Williams Bay, Wis.

I regard the study of the classics as of the greatest importance in the training of those who purpose to specialize in science. Scientists occupying posts of influence and responsibility must be handicapped, whether consciously or not, by the lack of classical languages acquired in the ordinary preparatory and undergraduate work, of perhaps four to six years of Latin and two to four years of Greek. New words must be added to the terminology of every live branch of science, and such words should be based upon the classical languages in order to be adaptable without serious change to other modern languages. The teacher or investigator constantly meets such words in his work, and it certainly must be annoying to him if he is unable to surmise

closely their meaning from his own recollections of the classics.

In addition to textbooks and articles, definitions in dictionaries and cyclopedias are frequently sought from men successful in a specialty; but how can compliance properly be given to such requests without some understanding of the classical derivation of the words involved? The editorial function also often devolves upon the scientist and teacher, and here in a particular degree the authority of the classics must be invoked on disputed points of rhetoric and style.

I hardly need mention the obvious advantage of an early study of the classics as a foundation for that exact knowledge of the modern languages so essential to a scientific man.

I can think of no finer example of the investigator and teacher well founded in the classics than the late Professor Charles Augustus Young, of Princeton, who used that knowledge with authority but without pedantry.

WILLIAM F. MAGIE

Former President of the American Physical Society
Professor of Physics and Dean of the Faculty
Princeton University

The most practical result that can be reached by a course of education is training the mind to think quickly and to draw correct conclusions from the data presented to it by any problem. Correct inductive thinking is, in my opinion, best taught to the boy in school by the honest study of the classical authors. I believe that the best training which a student can get in the inductive process is given by his working out, with the aids that are fur-

nished him, the correct meaning of passages in foreign languages and that this training is particularly successful when these languages are the classical languages. In my opinion, no better preparation can be made for the study of the sciences or for the practical business of life than by the study of the classical languages.

For Dean Magie's address see page 73.

## HENRY CREW

Member National Academy of Sciences
Former President American Physical Society
Professor of Physics, Northwestern University

The domain of science is one of precise ideas. The expression of these ideas calls for the accurate use of language. No man who has definite results to describe ever fails to appreciate a clear and unambiguous use of his mother tongue.

Granted that an American student of science ought to acquire the ability to write clearly in the tongue of Shakespeare, what is the quickest route? It is my experience that the short path to the simple and precise English needed by a man of science lies through the tongues of Homer and Virgil. Even more essential are a few years of classical study for the American lad who hopes to acquire a perspective in the world, who hopes later to be liberated from his specialty, who hopes in short for a liberal education.

## E. P. LEWIS

Professor of Physics, University of California

I think that it is generally true that students who have had the advantage of a cultural high school course, including Latin, are more successful in scientific and

engineering studies than those whose course has been largely vocational and "practical." I believe that "culture" is a state of mind rather than the direct product of either information or discipline. While I do not think that the attainment of this state of mind is impossible without Latin, I do believe that this language can contribute a large measure to it.

CHARLES H. HERTY
President American Chemical Society, 1915-1916
Editor of *Journal of Industrial and Engineering Chemistry*
New York City

For Professor Herty's address see page 63.

EDGAR F. SMITH
Member National Academy of Sciences
Former President American Chemical Society
Provost of the University of Pennsylvania

For Provost Smith's statement see page 174.

HARVEY W. WILEY
Former Chief Chemist of the United States Department of Agriculture
Former President American Chemical Society

The man who has been profoundly trained in Latin and Greek can express his thoughts in English with greater clearness and thus give them greater efficiency. Biological chemistry is practically written in the Greek language. The language of botany is essentially Latin in so far as the names of the plants are concerned, and Greek in the names which deal with the anatomy of the plants and their organs. The language of mathematics is largely Greek; the language of medicine, Greek and Latin combined. The common language of the home is largely Latin and Greek. The knowledge of Latin and

Greek is practical, even in the restricted modern application of the term. The day is far distant when language study will no longer be a very important constituent of every scheme of education.

### ALEXANDER SMITH

Member National Academy of Sciences
Former President American Chemical Society
Professor of Chemistry, Columbia University

My opinion is that the classical languages are better taught than are the modern languages—at least that was my experience—and that therefore better mental training is secured by the study of Latin and Greek. I feel also that a scholarly knowledge of the English language can only be obtained by a study of the languages, such as Latin, Greek and Anglo-Saxon, from which it is derived. I fail to see how a student can master the technical vocabulary of the sciences, and particularly of the medical sciences, without a knowledge of the classical languages.

### L. W. MCCAY

Chairman of Department of Chemistry, Princeton University

The importance of a thorough grounding in the classics for all who seek a liberal education has been recognized and insisted upon by me ever since I left Princeton in 1878. My graduate work was done at the Royal Mining School at Freiberg, Saxony, and it was here, at the beginning of my life work, that my attention was first called to the extraordinary difference in mental as well as practical ability existing between the classically educated men and those whose preparation for a scientific career had been mainly technical. The most bril-

liant students in my day were the *Abiturienten* of the Gymnasia; then followed those of the Realschulen. The former not only led us all in the classroom and laboratory work, but their familiarity with the classics was remarkable. They had a fine command of language, an ease and confidence in conversation which was delightful, and their acquaintance with French and in some cases English surprised me. Most of them spoke French, and there were but few who could not at least read English. Their aptitude and general information occasioned much comment among the American college men. The fact that while their training had been for the most part classical they mastered all scientific and technical subjects with ease made a deep impression on me, for I had always supposed, when a student at Princeton, that the time devoted to a study of Greek and Latin was all lost, that the knowledge acquired could be of no earthly use to me as a propaedeutic to courses in mining and metallurgical engineering.

I was too young and inexperienced then to realize that it was the mental discipline developed by the study of the classics which, so far as my future work was concerned, was the main thing. During the four years spent in Freiberg I learned too that Greek and Latin are valuable not only as mental disciplines, but that an acquaintance with the literature of the ancients at once stamps a man as one of parts and, whatever his profession may be, admits him to companionship with the best minds. The classical education which I received at Princeton was certainly a great asset in winning for me the attention and respect of my professors and the better class of students. The Realschulen men were

also clever and attractive, eager, enterprising and enthusiastic, but, with a few exceptions, they never seemed to equal quite those from the Gymnasia, a fact I have since believed was due to the effectiveness of the Greek which, as is known, is required in the Gymnasia in addition to Latin. The latter was the only ancient language taught in the Realgymnasia or the Realschulen, the students being required to devote the greater part of their time to mathematics, the sciences and modern languages. I had also an excellent opportunity in those days to compare the classically educated American college man with the college graduate who had specialized at home in mathematics and the sciences with the view of preparing for his engineering studies. The former was decidedly the abler and, so far as social influences and relations were concerned, by all odds the more attractive and companionable man. At the mining schools in my day there were students from the schools and educational institutions of all lands, and for this very reason I had an exceptionally good opportunity to generalize. The men who had received a classical training were in general the best students. Later, while continuing my chemical, mineralogical and geological studies in Heidelberg, I noticed the same thing. The Germans, Americans, Englishmen, Russians, etc., who had been well grounded in the classics were intellectually and socially the leaders.

These observations were made over thirty years ago, but I have at no time since had reason to alter my views. My best students in chemistry have been the candidates for the A.B. degree. They are brighter, more acquisitive and abler in their powers than the B.S. and Litt.B.

men. I regret that in recent years so few of our A.B. students have elected the chemical department. They are not always the best manipulators, but in theory they have certainly equalled and, in most instances, excelled their B.S. classmates.

So far as the pure sciences are concerned I confine myself to the observations I have made as a teacher of chemistry. I believe, however, that in mathematics, physics and geology, the ablest men are also those who have had a classical training. I say this, and say it without any hesitancy, for I have in mind my early Freiberg experiences.

The man who can do but one thing, I care not how well he does it, is rarely a good mixer. This one-sidedness is, of course, the result of his vocational training. Compare many of our scientific men of today with the broad minded, highly cultured giants of the past generation. The specialist has his place, it is true, does admirable work and stands high in the esteem of his associates; but apart from his profession he rarely shines. He lacks that ease, freedom, engaging address and knowledge of the social and intellectual world which are alone characteristic of the liberally cultured. We hear so often nowadays that the old order is changing, that to keep abreast of the times our young men must devote themselves to those studies which will be of practical use to them in after life. Many colleges have done away with Greek as a requirement for the A.B. degree, and efforts are now being made to drop Latin as a requirement for the B.S. degree. My conviction is that to omit the study of the Latin language in our schools and colleges will be to devitalize our educational sys-

tem. To relegate Greek to the category of electives is bad enough, but consider the intellectual status of a college graduate who has had no Latin.

I cannot bring myself to sympathise with the present utilitarian schemes of education which are the outcome of materialism and commercialism. The principle underlying all such schemes seems to me to be prosperity, material prosperity! Our sense for dignity, for beauty, for morality, for all that lends polish, refinement and elegance to life is to be neglected, or, at the most, made subordinate to our material welfare. I have given this matter much thought and am inclined to believe that the present tendencies in our American education are due mainly (1) to the intense dislike the average boy has for difficult tasks, (2) to the plastic and submissive nature of his parents, for American parents are proverbially indulgent, (3) to the eagerness of the young man to finish his education as soon as possible and enter upon his vocation and (4) to the sordid tendency of appraising every discipline according to its usefulness in promoting material success.

The more I see of the graduates of many of our colleges and universities, the more I am convinced that the ideas underlying our undergraduate curriculum here in Princeton are sound. Our record is an excellent one. Let us hold fast then to what reason and experience have taught us is best in rounding out our young men and preparing them for their struggles in the world. Above all things let us beware of making specialists of them.

The assistants employed in our chemical department are not only Princeton graduates but graduates of colleges scattered all over the country. These assistants

are appointed annually and with the utmost care from a large number of splendidly recommended men. The Princeton graduates have thus far proved the abler. Their success in teaching has been more pronounced, they are broader in their conceptions and sympathies than most of the men from the other colleges, have a more thorough grasp of the science of chemistry as a whole, and their ease and self-assurance are marks which indicate the effectiveness of their liberal training.

My belief is that the Latin which is required of all our college students is in no small degree responsible for the exceptionally good showing made by these men. It is a significant fact too that our assistants and instructors who have had Greek in addition to Latin, our A.B. graduates, have turned out to be the most brilliant of all. So far then as my experience as a scientific man goes, I can find in these recent educational schemes nothing which approaches in disciplinary value the liberal system in use here in Princeton, a system in which Latin is one of the requirements.

Omitting the role played by the classics as regards mental discipline, their value, as I see it, may be stated very briefly:

Familiarity with the Greek and Latin grammars is of considerable importance in that it aids us in mastering our own tongue, and in acquiring a knowledge of other modern languages;

So closely interwoven are the conceptions and ideals of the ancients in the literature of the moderns that to read intelligently any of the famous works of the latter assumes some knowledge of the humanities, and

The study of the classics effects a charm, a refine-

ment, a polish, instantly felt but impossible to describe.

To be conversant with the great productions of the writers and artists of antiquity, works which time and experience have stamped as models of perfection, is to possess a power recognized in all walks of life. He who has mastered his profession and acquired in addition at least some acquaintance with the humanities is the truly liberally educated man. Mere knowledge gives weight, but lustre alone gives charm. The practically educated man lacks lustre. Both attainments are essential. In the great world knowledge unadorned may command respect, but it never captivates. *Materiam superabat opus.*

F. C. PHILLIPS

Professor of Chemistry, University of Pittsburgh

As one of the few survivors of the old faculty (old Western University), I cannot help expressing here the pleasure I have felt in seeing these young men of character and ability with whom I was long ago so agreeably associated now occupying responsible positions of leadership in the great industries and in the professions. In contributing to their successful careers I am now convinced that a high standard of scholarship in the classics has in many cases played a conspicuous part.

W. A. NOYES

Member National Academy of Sciences
Editor *Journal of American Chemical Society*
Professor of Chemistry, University of Illinois

I have always considered that the training in the accurate use of language which has come from my study

of Latin and Greek has been of very great advantage to me as a teacher and that the habits acquired in classical studies have furnished a good basis for sound scholarship in scientific lines. The grammatical and philological work of the classical student enables one to acquire much more easily the ability to correlate scattered items found in complex scientific literature.

LOUIS KAHLENBERG
Professor of Chemistry, University of Wisconsin

Permit me to state that I consider work in languages and mathematics of special importance as a preparation for a scientific career in the university. I have always felt that scientific students are especially lacking in linguistic training, which is to a considerable extent to be ascribed to the fact that even in their high school work they begin to devote time to the study of sciences which ought to be devoted to securing a solid foundation in languages. The study of German is of special importance to any one who intends to pursue science, but I feel that a knowledge of Latin is extremely desirable. And certainly the mental training that comes to a student who has studied both Greek and Latin in addition to German is especially calculated to give him that mental strength which is so essential to students in future scientific work. The work in science can best be done in a university, and any student in a high school who is looking forward to a scientific course in the university would, in my opinion, do well to spend a major portion of his time upon the study of mathematics and classics. I make these statements because of my experience with students of about equal ability who have devoted their

time to classics on the one hand, and elementary science on the other, before approaching scientific work in the university. Ultimately the stronger men have invariably been those who have had strong basal work in languages and mathematics.

WILLIAM BERRYMAN SCOTT
Member National Academy of Sciences
Vice-President of the American Philosophical Society
Blair Professor of Geology, Princeton University

For Professor Scott's address see page 66.

HENRY FAIRFIELD OSBORN
Member National Academy of Science
President of American Museum of Natural History
New York City

I owe a very deep debt to my studies in philosophy and the classics while at Princeton. Greek is so closely interwoven with all biologic language and thought, and the Greek philosophers are so inspiring in their incursions into natural philosophy and zoology that without a Greek foundation one certainly cannot reach the philosophic or the cultural level in modern biology. The same is true, in a less degree, of Latin. In "The Greeks to Darwin" and in my recent work "Men of the Old Stone Age" I have traced the sources of all modern biologic thought back to the Greeks. Their anticipation of modern theories and speculations is little short of miraculous, considering the comparatively slender range of their observations. The same holds true in lesser measure of Latin, which since the time of Linnaeus has been the thought companion of the naturalist.

As I recall the methods of my Latin and Greek edu-

cation, however, I am impressed with the lack of inspiration and of vitality, and believe that the survival of these studies in the future depends largely upon the ability of our teachers of the classics to draw constantly the parallel between ancient and modern thought and life, the cause of which doubtless lies in our unchanging human nature.

JOHN M. CLARKE

Member National Academy of Sciences
President of the Geological Association of America, 1916
Chairman of Committee on Geology of the National Research Council
Director of the State Museum of New York
Albany

My life has been given over to scientific problems of varying calibre and I am often reckoned by my colleagues and, I think, the outside world as a matter of course the product of the technical school. I am very happy and have always been very happy that I am not that, even though I today have only Greek enough to help me anneal mongrel scientific names, and just sufficient shredded Latin to keep me in touch with the dinners of Lucullus. I owe to a rigorous discipline in Greek and in Latin, a substratum upon which, I believe, with natural tastes for science, I have been able to build such superstructure as now stands to my credit or otherwise.

The effort so obviously abroad in the world to repress the classical training of youth will, I may say for science, prick the happiest dreams and the most compelling hopes of any philosophy which has its foothold in the phenomena of nature.

N. C. GROVER
Chief Hydrographer
United States Geological Survey
Washington

The principal function of education is to teach men and women to think and thereby prepare them to act. The first and most important measure of the educational value of a particular study or course of study is, therefore, its effect in developing accuracy and rapidity in the reasoning powers of the students. If such study also furnishes information which will be of future value, a double object is accomplished. Many of us, however, recognize only the value of the information acquired and lose sight of the fact that the first essential of education is the training of the mind. That the study of Latin affords an excellent drill is recognized by all students of the classics. Latin textbooks are excellent, and, as a result, the teaching of Latin is generally thorough and satisfactory.

The study of Latin is more than a mental drill, however. It furnishes a knowledge of the modern languages, French, Spanish, Italian and English, which cannot be acquired in any other way, since Latin has given to those languages in considerable measure their form and vocabulary. To us, of course, the effect on the acquirement of a working knowledge of the English language is of greatest importance. In my opinion the training in the conversion of ideas into clear, concise and accurate language is second only in importance, as a function of education, to the training of the mind in reasoning. Each one must convert his thought into spoken or written language, and the greater the ability to do this the better the chances for one to rise to a po-

sition of both influence and affluence. From observation of several hundred college graduates I am convinced that the average man who completes a college course is wholly weak in his ability to speak and write English. A study of Latin will, in my opinion, assist to remedy this deficiency.

W. J. HOLLAND

Director of the Carnegie Institute
Pittsburgh

In the higher walks of scientific research, more particularly as represented by the so-called "natural sciences," a good knowledge of the Latin and Greek languages is almost indispensable. The terminology of these sciences is derived almost wholly from these two languages, and the coining of new generic and specific names, which are constantly called for as the boundaries of knowledge are enlarged, demands of the student—especially if he be engaged in descriptive work—a reasonable familiarity with the Greek language, the laws which govern the combination of words in that tongue, and their Latinization. A knowledge of the rules governing inflections and their significance is of great importance, to the end that ridiculous blunders be not perpetrated. I will not go into details, as I might, but will quote what one of my dear friends, the late Professor Edward Hitchcock, once said in my hearing. Referring to the labors of his famous father, President Hitchcock, who was one of the foremost geologists of America, he remarked, "My father never could have written his great work upon the fossil footprints of the Connecticut Valley had he not been able to read the poems of Homer in the original."

H. H. DONALDSON
Chairman Committee on Anatomy in National Research Council
President of Association of American Anatomists, 1916-1917
Professor of Neurology, The Wistar Institute
Philadelphia

For Professor Donaldson's address see page 60.

EDWIN GRANT CONKLIN
Member National Academy of Sciences
President American Society of Naturalists, 1912
Chairman of the Department of Biology, Princeton University

There is no doubt that a knowledge of Latin and Greek is of great service to the student of science. Most of our scientific terms are derived from one or the other of these languages; these technical terms are frequently disturbing or even terrifying to the uninitiated, but they are usually intelligible and full of significance to the student familiar with the classical languages.

H. V. WILSON
Professor of Zoology, University of North Carolina

To those who think of entering natural science or one of the allied professions and who have some, not necessarily great, degree of ability to learn a foreign language and who fortunately are not so pressed for time as to be forced to restrict their study of language to tongues in which reports of current progress in their profession are usually made, classical studies will continue, I believe, for many years to be a very great help.

CHARLES A. KOFOID
Assistant Director Scripps Institute of Biological Research
Professor of Zoology, University of California

A knowledge of the vocabulary and grammatical forms of the Latin language is of very great practical

value to every student of the pure and of the applied sciences. It is of great help in understanding scientific terms, and indispensable for scholarly work in the sciences. The language of science is founded on Latin.

CHARLES E. BESSEY
Late Professor of Botany, University of Nebraska

I have always urged students who hope to do much botany to prepare themselves in Latin and Greek. It is a rule among systematic botanists that all descriptions of new species must be in Latin, and it is the practice of many to write all of their general systematic works in the Latin language. The standard descriptive works are in Latin. For this reason I urge every student who looks to systematic work in botany to have an adequate preparation in Latin. The need for Greek is somewhat different, since it is important to the botanist in connection with the etymologies of a multitude of technical terms, and especially the scientific names of plants and plant groups, phyla, classes, orders, families and genera.

In my experience as a teacher of botany to college students I have urged them to secure first a good foundation in Latin and Greek, and, while I have trained some young botanists who have had only "little Latin and less Greek," it is true that all have profitably made use of all the classical training they have had, and very generally have wished for more.

DOUGLAS H. CAMPBELL
Professor of Botany, Stanford University
California

My own college course (University of Michigan) was the "Latin Scientific," including a pretty full

course in Latin, but no Greek. I happened to be rather fond of language work, and so thoroughly enjoyed my Latin courses. How far the training in the language work was of service as intellectual exercise I don't feel able to say; certainly I not only do not regret the time spent in languages but I should be very sorry to have missed the pleasure the language work afforded me, whether or not my scientific work was aided. At any rate I am sure my outlook was broadened by this work and a permanent source of pleasure provided.

### Spencer Trotter

Head of Biological Department, Swarthmore College

I consider a course of classical study, both in Latin and Greek, an essential foundation to the right understanding and appreciation of any science.

It gives a certain value and perspective to human affairs which comes from a knowledge of the culture and thought of the past.

The influence of classical study is broadening in that it tends to counteract the often too restricted and myopic vision of scientific specialism.

No knowledge of a science can properly be acquired until the terminology of that science is mastered, and this terminology is in the main of Greek and Latin origin.

Aside from mere science, however, the pleasure derived from even a casual acquaintance with the words and thoughts of the ancient writers is in itself enough to make a study of the classics invaluable.

H. S. GRAVES
Member National Conservation Commission, 1908
Chief of United States Forest Service

I am most emphatically in favor of the study of Latin as a basis for a liberal education, and I believe that it should be required also as one of the subjects preparatory to professional studies.

W. L. JEPSON
Associate Professor of Dendrology, University of California

For any boy who expects to take up law, medicine or any branch of pure science Latin is of primary importance.

WILLIAM A. CREDITT
Principal of the Industrial and Agricultural School
Downingtown, Pa.

I regard these two languages (Greek and Latin) not only as essentials for a thorough classical education, but I regard them as essentials to the best possible English education.

HENRY KRAEMER
Editor *American Journal of Pharmacy*
Philadelphia College of Pharmacy
Philadelphia

I consider the study of Latin not only good discipline and of value to the scientific career, but it is equally valuable to any one who uses language as an expression of thought. This applies to letter writing, conversation, a business note and even ordinary business transactions. To be a power one must know how to use language; and how can you place words together unless you know their derivation and their real meaning?

## 10. EDITORS

### CHARLES R. MILLER

New York City
Editor of the *New York Times*

For Mr. Miller's address see page 93.

### EDWARD P. MITCHELL

Editor of the *Sun*
New York City

For Mr. Mitchell's address see page 90.

### ELLERY SEDGWICK

Editor of the *Atlantic Monthly*
Boston

Latin literature furnishes the supreme model for a straightforward, concise and logical style. It teaches any appreciative student close thinking and direct expression. Greek civilization is the source of love for beauty and refinement. I believe that only when equipped with some knowledge and recollection of the classics can a good editor do his best work.

### ROBERT LINCOLN O'BRIEN

Editor of the *Boston Herald*
Boston

While Latin is not an essential, even for leaders of the race, and while for one schoolboy in five it may be only a vexing luxury, nevertheless in my opinion it is our most effective instrument of training for all who are to make a professional use of their mother tongue. Latin has just enough inflections, just enough syntax to reveal grammar at its best. The language of Cicero and Virgil has artistic qualities in a formal perfection

rarely if ever found in English. Through variance with our own language in word order, in means of conciseness and energy, in metaphors, colors and the subtler artistries of wording, Latin lets us into the finest secrets of good craftsmanship. The history of English verse and prose, in their noblest periods, yields the best argument for modern mastery of the classics and particularly for a working love of Latin.

TALCOTT WILLIAMS

Director of The School of Journalism, Columbia University

The "English" which those who have had four years of training in the high school write is lamentable. Men who have had one, two, three and sometimes four years in our colleges are without knowledge of the first principles by which the writer must be guided. They understand less how a fact must be recorded, an opinion expressed, an argument made convincing or an event touched with imagination than those who have been through the drill of the city room and the news desk. These are the practical results which accompany the great change in our education in the last forty years, which has supplanted the old learning by the new.

Fortunately, while the study of Latin has greatly decreased in our colleges as compared with twenty to forty years ago, and Greek, save here and there, is taken by so few that in one college of the first rank it was not possible to award the Greek prizes, the study of Latin in our secondary schools has greatly increased. In 1890 a little more than one-third (34.69 per cent) studied Latin. In our public high schools for the past ten years this number has reached 50 per cent. This

army of high school students constitutes the largest array of youth studying an ancient tongue ever gathered under the national system of schools in any land. Such improvement as has come in the English written in our high schools is, I believe, due to this cause. It is, at all events, the experience of the School of Journalism that those who have a classical education write better than those who are without it.

### Paul Elmer More

Former Editor of the *Nation*

Here, whatever else may be lacking, is discipline. The sheer difficulty of Latin and Greek, the highly organized structure of these languages, the need of scrupulous search to find the nearest equivalents for words that differ widely in their scope of meaning from their derivatives in any modern vocabulary, the effort of lifting one's self out of the familiar rut of ideas into so foreign a world, all these things act as a tonic exercise to the brain. And it is a demonstrable fact that students of the classics do actually surpass their unclassical rivals in any field where a fair test can be made.

We shall, then, make a long step forward when we determine that in the college, as distinguished from the university, it is better to have the great mass of men, whatever may be the waste in a few unmalleable minds, go through the discipline of a single group of studies—with, of course, a considerable freedom of choice in the outlying field. And it will probably appear in experience that the only practicable group to select is the classics, with the accompaniment of philosophy and the mathematical sciences. Latin and Greek are, at least,

as disciplinary as any other subjects; and if it can be further shown that they possess a specific power of correction for the more disintegrating tendencies of the age, it ought to be clear that their value as instruments of education outweighs the service of certain studies which may seem more immediately serviceable.

What we need chiefly is a deeper knowledge and finer understanding of those few authors who are really the classics. We need to reassure ourselves that as pure human literature they still stand supreme and unapproached. I for one am ready to avow my opinion, and I believe that no great advance in the classics is possible until this belief is proclaimed boldly and generally, that the "Iliad" and "Odyssey" have a beauty and humanity that no modern epic poet has ever touched—not Milton himself, though I adore Milton this side of idolatry. There is no lyric poetry in modern tongues that has the music and exquisite feeling of Sappho's Lesbian songs, or the soaring strength of Pindar's impassioned vision. No one else has ever quite caught again the mellow suavity of Horace. No later philosopher has translated the eternal verities into such perfect speech as Plato. I have seen Edwin Booth in "Lear" and "Macbeth" and "Hamlet," and felt the grip of Shakespeare at my very heart. But I have seen a band of young amateurs present the "Agamemnon" in the stadium at Harvard, and through the crudeness of their acting and the helplessness of the chorus and the disadvantage of a language I could scarcely follow, I still knew that here was a higher form of drama than anything on the modern stage, and that the art of Aeschylus was profounder and more everlasting in its emotional appeal than Shakespeare's even.

### J. Barnard Walker

Editor of the *Scientific American*
New York City

Though I have not been conscious of making definite effort to "use" the classics, I am certain that my early studies of Latin and Greek have proved to be of practical value. The terms used in the scientific world are largely and in some sciences almost exclusively derived from the classics. New inventions and discoveries call for new descriptive words, and these are very largely of classical origin. Hence the knowledge of the so-called "dead" languages (which are not so dead as might be supposed) is helpful in assisting one to a more ready understanding, when he is reading in a new or more or less unfamiliar field. Furthermore, a knowledge of the classics gives to the writer a more intimate knowledge of the meanings of words, and a more just discrimination in their use. His vocabulary will be larger, and his writings will possess, probably, more of the elements necessary to constitute what is known as style.

### Robert Bridges

Editor of *Scribner's Magazine*
New York City

I note what you say about an expression of opinion on the classics, but really I do not think that I carry any guns in the matter. I heartily approve of all that your association is doing, and believe in the permanent effect of classical education on all who have absorbed it from the proper instructors. As I said the other night in our conversation, Dr. Packard really vivified Pliny's "Letters" for me, and made them a reflection of the life of a Roman gentleman of his time.

LYMAN ABBOTT
Editor of the *Outlook*
New York City

My first remembrance of grammar is my study of the Latin grammar, which gave me, so far as I now can see, whatever knowledge I possess of the structure of language.

LAWRENCE F. ABBOTT
President of The Outlook Company
New York City

I am both a vocationalist and a culturist and therefore deplore the factitious division so often made between vocational and cultural education. True vocational education ought to cultivate a man's spirit and true cultural education ought to enable him to do his share of the world's work more efficiently. In the history of education in this country the pendulum first swings to one side and then to the other. Thirty or forty years ago too much emphasis was laid upon the so-called humanities. There was a natural reaction with which I personally sympathized; but now, in my judgment, too much emphasis is being laid upon those forms of education which will enable a man to make his daily bread or his daily profit. In the unfortunate conflict between the camp which is tagged "vocational" and the camp which is tagged "cultural" it has often seemed to me that important life truth is forgotten, the truth that nothing can be done efficiently or well without the influence of a highly developed imagination.

It is a fact, not a theory, that the Greek and Latin classics have supplied to the civilized world the greatest incentive to be found in literature toward a use of the

imagination in every day life. The greatest English statesman and the finest English poets have received some, at least, if not a large part of their inspiration from Greek and Latin literature. This is a demonstrable fact. If it were equally demonstrable that Assyrian or Sanskrit or Hebrew or Arabic or Chinese had contributed as much as Latin and Greek to the inspiration of the imagination, then I should hope a body similar to yours would defend these languages. No reasonable man I suppose stands for universal compulsory study of Greek and Latin, but the truth is that the anti-classicists in their opposition to compulsion are making it difficult even for the small percentage who desire and ought to be encouraged to volunteer for the study of Greek and Latin. By all means let us have our schools of applied science, of technical professions and of commercial training, but let us also have some schools where those men who are to be the leaders in the art of literary expression may go to the two great sources of that art, the Greek and Latin classics. Most of us have to get modern French, German and Russian literature through translations, but any man who understands even one modern language so that he can read it with pleasure and comfort knows that the effect upon the mind and spirit of an essay, a play or poem is extraordinarily different in the original from even the best English translation. I get occasional refreshment and joy out of Calverly's translation of Theocritus. How much more must the man who can read the Greek original. Few colleges or universities can have great laboratories and machine shops, but the smallest college can have a good library. But the man who does not have

at least a respectful bowing acquaintance with Latin and Greek literature cannot be entirely happy and at home in a fine library. It is to be hoped that there will always be American boys and men who will desire and possess opportunities to study Latin and Greek in order that they may pass along to their fellows some of the beauty of the old poets, essayists and historians.

GEORGE W. OCHS
The *Public Ledger*
Philadelphia

I am a very strong believer in the beneficial results to be obtained from the study of Latin and Greek, and I find in the pursuit of my profession that it has been of great practical use to me. Its practical service is that it gives one a clearer insight into our own language. One would never thoroughly understand the shades of meaning or the rich treasures of the English language without some familiarity with the derivation of words, and this knowledge is obtained only from a study of Latin and Greek. Moreover, it enlarges the vocabulary, and imparts a clearer understanding of grammatical construction.

## 11. MODERN LITERATURE

L. B. R. BRIGGS
President of Radcliffe College
Professor of English, Harvard University

Professor Kittredge once asked a man who remembered no Latin and thought his Latin had done him no good how much of the roast beef that he is eating today he expects to find in his stomach, as roast beef, five years from now. When Mr. Charles Francis Adams

had delivered his once famous Phi Beta Kappa address, called "A College Fetich," some one (Professor A. S. Hill, I think) remarked that for him to say he had got nothing from his Greek was like an atheist's saying that he had got nothing from Christianity. Most of us use in our daily life no mathematics except addition, subtraction, multiplication and division; but most of us are not so rash as to say that we got nothing from algebra and geometry. I for one have always been glad that I was obliged to study Latin, Greek and mathematics, and glad that when compulsion ceased I elected Latin and Greek. I have often wondered whether we do better for our students in abandoning the old prescribed Freshman year, in which the Freshman class as a whole was put through a certain amount of cultivating and disciplinary study on the basis of which the individuals were allowed later to use great freedom in election. I do not know that I should go back willingly to the old scheme; but I have grave doubts whether we have not, as it were, knocked out the underpinning of many an education.

We see nowadays even specialists in literature who have had scarcely any training in the classics. Every year I work in English composition with a class of picked men. Those who are well trained in the classics are comparatively few, but they always have something to build on which the other men lack.

### William Lyon Phelps

Professor of English, Yale University

I think the study of Greek and Latin literature gives a historical foundation and background, together with

a cultural element that cannot be obtained in any other way.

### Henry van Dyke

Recently Minister from the United States to the Netherlands
Professor of English Literature in Princeton University

I think that the great value of classical studies in liberal education is twofold. First, they promote a more clear and thorough apprehension of the structure and significance of the various languages of mankind. All human languages are by no means of equal rank. Greek and Latin are certainly among the more perfect, if not altogether the most perfect of those vehicles of thought and feeling which have developed out of human intercourse and civilization. They are in a way norms and standards by which to measure the merits and demerits of other languages. This service is entirely apart from the value of Greek and Latin in helping us to a quicker understanding of modern words which are derived from Roman or Greek roots.

Second, a still higher value of classical studies lies in the opportunity which Greek and Latin literature gives us to obtain a broader and better view of the permanent elements of human life and progress. It may be said that we could get this view equally well from translations. But that is not quite true. There is something in an Ode of Horace read in the original, which is never found in the translation, however good it may be. The sweep of the Virgilian line and of the Virgilian thought may be imitated in English, but it cannot really be reproduced. To read even a little of the classics in the original tongues makes an effect upon the mind, which, although it may be forgotten, is in my opinion hardly ever lost.

## Alfred Noyes

Professor of English Literature, Princeton University

The value of classical studies is very clear to the student of English literature. Quite apart from the fact that it is impossible to appreciate many of the masterpieces in our glorious literature without some acquaintance with the original flavor of the Greek and Roman poets, it is also true that the increasing carelessness of modern writing, the more slipshod use of words and the dearth of great masters of style during the last twenty years are probably due to the neglect of classical studies. It used to be said that the best training for a writer of English was a course of Latin prose. Certainly those who have had it usually display a sense of style, a sense of the logic of language, of the structure of sentences and of the inner significance, the delicate shades of meaning in words that to others appear synonymous. I am not speaking here, of course, of the exceptional genius. But though Shakespeare himself may have had "small Latin and less Greek," it is quite certain that he had more than most students of today. Even if he digested it so completely that he forgot it in later years, it is also quite certain that it enriched his mental life and nourished the sinews of the most athletic style in all literature.

All the great masters of our own language have used it with an eye to its inner meanings. When Stevenson wrote of the "tremendous neighbourhood" of a volcanic mountain, he was going down to the roots of things, and if his faith were not enough to move mountains he was at least able to shake them visibly before the reader. Milton both shook them and moved them in the same power, where others might only have hurled large ad-

jectives at the indifferent skies. Nobody can ever understand Matthew Arnold's poem on his dog's grave without the recollection of the most exquisite line in all Roman poetry, and no translation can give the music that has haunted the world of literature for nearly two thousand years:

Sunt lacrimae rerum et mentem mortalia tangunt.

For the truth is that though Latin and Greek in a superficial sense may be "dead languages" they are living literature. A great work of art, statue or picture or poem, can never be "dead." There is a confusion of thought in most of those who apply the word so glibly to the world's most vital heritage. It is not without significance that the most beautiful greeting ever addressed by one poet to another was given by the greatest poet of the nineteenth century to a poet who died nearly two thousand years earlier. For both men were, and are, alive and immortal:

Now thy forum soars no longer,
  Fallen every purple Caesar's dome,
Yet thine ocean roll of rhythm
  Sounds forever of Imperial Rome.
Now the Rome of slaves hath perished,
  And the Rome of free men holds her place,
I, from out the northern Island,
  Sundered once from all the human race,
I salute thee, Mantovano,
  I that loved thee since my day began,
Wielder of the stateliest measure
  Ever moulded by the lips of man.

## FELIX E. SCHELLING

President Modern Language Association of America, 1914
Professor of English, University of Pennsylvania

I believe that the value of any study depends less on its content than on the spirit in which it is pursued. I believe that subjects pursued for what is called "their practical utility" or subjects readily convertible into utilitarian terms are, to the extent of that immediate utility, less valuable as contrasted with subjects in which there is play for that firm spirit that comes of disinterested endeavor. Wealth of human interest and remoteness from present application seem to me the two important factors in any subject chosen best to foster this disinterested endeavor of which I speak. And the classics of ancient Greece and Rome appear to me best of all studies to fulfil these conditions.

We need much besides in modern education; but modern education is still incomplete without the classics for which our ingenuity has found and probably will find no genuine substitute.

## VIRGINIA C. GILDERSLEEVE

Professor of English, Dean of Barnard College
Columbia University

Of all the various reasons for the study of the classics, two have long appealed to me as the most important. Though both apply to either language, the first is especially applicable to Latin, the second to Greek. Both seem to me very practical.

A fairly thorough study of Latin gives, I believe, an admirable linguistic foundation. Linguistic training is surely an important part of education for a boy or a girl. I mean by this the careful analysis of language,

with grammar, syntax and accurate distinctions in shades of meaning. When this is done thoroughly for one language others can be built upon it more rapidly and easily. As it happens our own tongue, English, being an illogical and loosely constructed language, is ill adapted for the fundamental training. Latin, on the other hand, logical and well knit, serves this purpose well. It is, besides, useful as a stepping stone to the modern languages which are its daughters.

The study of Greek is extremely valuable in another way. It most resembles in its effect travel in foreign lands and types of civilization, higher, in some ways, than our own. Like travel, Greek opens and broadens one's mind. I am profoundly thankful that the college entrance requirements of my undergraduate days forced this blessing upon me.

LANE COOPER

Professor of English Language and Literature, Cornell University

Those relatively few young persons of our day who possess an adequate grounding in Greek and Latin have this in common with the English poets: they know something about grammar—not English grammar specifically, nor Greek, nor Latin, but grammar in general. They recognize subject, copula and predicate whenever they meet them; they have an understanding for order and relation in the parts of a sentence. They are accustomed to see the elements of language as elements, and are not incapable of arranging them. They know the difference between a temporal and a causal connective; they can distinguish between *post hoc* and *propter hoc*—a highly important distinction in life. The reason they can do so is that whereas it is possible

to express oneself either loosely or straitly in English, according to one's previous education, both Greek and Latin compel the schoolboy to make a sharp distinction between one thought and another. This is precisely what those who have missed a severe linguistic training are never prone to do. There may be exceptions; if so, these are negligible. In the long run, they who have done well with Greek or Latin in the preparatory school can write passable English as freshmen, and they who have studied neither are ungrammatical and otherwise slovenly in usage.

LUCY MARTIN DONNELLY
Professor of English, Bryn Mawr College

A knowledge of Latin and Greek is essential, in my opinion, to a true appreciation of English literature. From Chaucer and Shakespeare to Stephen Phillips and Robert Bridges the sources of English literature have been largely in ancient history and story. To read many of the finest English poems, Milton's "Lycidas" for instance, without a knowledge of the classics is to miss the importance of their associations and allusions and the beauty of their language.

JOSEPH V. DENNEY
Dean of College of Arts, Philosophy and Science
Professor of English, Ohio State University

Thousands of people have testified to the fact that not until they had studied a second language did English grammar become clear to them. And the second language should by all means be Latin, partly because of the completeness of its grammatical apparatus, but chiefly because the native English sentence was first

made orderly, logical, serviceable and efficient under the influence of the grammar of Latin. The management of clauses, for instance, of tense sequence, of indirect discourse, of linking apparatus, of position and preposition—so troublesome in writing English—is learned from Latin as a matter of necessity. It is seldom learned thoroughly through English alone, as any journalist can testify or illustrate.

The student of English, if devoid of Latin and Greek, must pick and choose his reading with great care if he would maintain his interest for long. He will find whole periods of English prose impossible and much of English verse beyond his imaginative reach. He must confine himself to the contemporaneous, and often suffer the feeling of detachment even there. He is debarred from real intellectual sympathy with no inconsiderable portion of nineteenth century prose and verse—to mention only the more familiar names, with portions of Longfellow, Lowell and Emerson, the Arnolds, the Brownings, the Morrises, Landor, Keats, Shelley, Byron, Tennyson, Wordsworth, Macaulay, Newman, George Eliot, Ruskin, Rossetti, Pater, and even Tom Moore.

The future of real English study is bound up with that of the other languages and especially Latin and Greek.

STUART P. SHERMAN
Professor of English, University of Illinois

These are the results of a little experiment which I have recently made upon some four hundred university freshmen and sophomores chosen at random from the colleges of liberal arts, law, engineering and agriculture.

The results of this experiment may be summarized briefly in the form of "laws" as follows:

A student's power over the English dictionary varies directly with the number of years in which he has studied Latin.

A student's acquaintance with the commonplaces of classical allusion varies directly with the number of years in which he has studied Latin.

A student's ability to read a page of Shakespeare varies directly with the number of years in which he has studied Latin.

### J. C. Freeman

Late Professor of English Literature, University of Wisconsin

On entering a preparatory school at the age of thirteen, I was so fortunate as to have my attention directed to the study of Greek, and for several years in school and college I devoted to it a portion of each day.

Not a day has passed since then without my finding it of great use to me. I never read an essay, an article in a newspaper, even an advertisement, without my Greek enabling me to understand it better. I have a private wire on Plato and Aristotle and I hear their comments on the most recent Philippine complication and the latest automobile. I am always delighted to find in my classes some who have studied Greek. I expect and I find in them a finer appreciation of literature. At our university jubilee, at which we had representatives from all parts of the world, I was interested to notice that the speakers who spoke most to the point and in the best taste, and who charmed and delighted their audiences were invariably men of classical training.

I should think it fortunate if young persons of either

sex who propose to acquire a thorough education should lay the foundations of it in a study of the Greek language and literature.

HARDIN CRAIG
Professor of English, University of Minnesota

My experience since I left Princeton, in an institution in which classical studies have been more and more subordinated to science and to studies having to do with vocation, has led me to think it essential that effective measures be taken by American college teachers of all liberal branches to restore classical studies to a position of importance in the curricula of schools and colleges.

The plans outlined for modern practical courses of study may incidentally and indirectly lead to the cultivation of taste and the possession of ideals. They substitute something else in their place, a thing which I am by no means disposed to undervalue or discredit. Perhaps it is in most cases enough, but as a cultural agency the modern course of study, when it is made up without the classics, is hopelessly limited; for culture seems to reside in the classics. I merely generalize upon my observation of the standards of estimate in life.

The chances are that those persons who have somehow learned what a classic is, what the classics are and why they are classics, however imperfectly, will be considered by their associates as cultivated persons; and those who are not so fortunate will not. If those trained only in the practical manner have risen to the same cultural level as those trained in the classics, it will usually be found that they have gained the classical point of view from early environment or that, like ill prepared graduate students, they have gone back and read their

classics. Some acquaintance with the literature and philosophy of the ancient world seems always necessary. I would not be narrow as to the method of approach. Keats was no less great an exponent of classic culture though he knew no Greek than was Shelley, who was a Platonist and a student of Sophocles. But that the world judges ultimately by the spirit of the classics, I should not be disposed for an instant to doubt.

CHARLES MILLS GAYLEY
Professor of English Language and Literature, University of California

For prospective teachers of English and Latin, Greek is the elective subject first in importance. The student's general culture in other lines is adequately provided for by the required studies of school and university, so that this advice, to future specialists in Latin or English, may be given with the utmost emphasis, and without fear of too great limitation of the student's range.

CHAUNCEY W. WELLS
Associate Professor of English Composition, University of California

The longer I teach English the more I am convinced that training in the classics, especially in Latin, is an all but indispensable adjunct to training in English composition and English literature.

My opinon is that for the successful study of English in college a sound preparation in Latin is even more necessary than a preparation in English itself. Other things being equal, I prefer a student who has had four years preparation in Latin and only two in English to one who has had but two years preparation in Latin and four years in English.

Few people, few teachers even, seem to realize that proficiency in constructing sentences, in fitting together in the English order the clauses of a sentence composed in the Latin order, is an exercise in practical logic of the most rigorous kind. It is logic expressed not in formulae and equations but in the universal medium of intercourse.

Students equipped in this way I find to be more capable than others of addressing their minds to problems of expression and of literary appreciation. The difference in grasp, in discrimination and in economy of effort is astonishing.

JAMES CAPPON
Dean of the Faculty of Arts
Professor of English, Queen's University, Kingston, Ontario

The question, then, as to the place which classical study should have in our modern system of education must be considered mainly from this point of view, how does it serve the great ends which literary education in general serves? What is its special place there? Is some direct knowledge of it essential to complete true literary education, or is it only a helpful addition as any other literature might be, in some degree at least?

Most educationalists in our day are ready enough to admit the deep and delicate organic filaments which connect Graeco-Roman civilization with that of our own time. Great material and political changes have rather disguised than altered our relationship. The structural forms of our poetry and oratory and the logical forms of our reasoning were grafted by the men of the Renaissance on Graeco-Roman literature. Many of the masterpieces of modern literature, Dante's "Di-

vina Commedia," Milton's "Paradise Lost," Arnold's "Thyrsis," and indeed all our great pastoral elegies and idylls bind us fast to the classical world both by what they recall and by what they imply, though literary criticism has not yet done as much as it might have with that last point. Most of the important documents in the history of our civilization cannot be read at first hand, with a full sense of possession and enjoyment, without a knowledge of Latin at least. And if the color of the Graeco-Roman mind runs strongly in our literature, it is still more marked in our language. The diction of the newspapers we read is, as far as nouns, verbs and adjectives which give color to speech are concerned, fifty per cent of it, Graeco-Roman. Our philosophic and scientific terminology is wholly so. Even outside of literature our indebtedness to that classical world is still very great. Our modern jurisprudence has been culled out of the maxims of Roman law. The civic buildings I see every day in this land where the Huron once built his wigwam are the work of the Graeco-Roman mind, adapted to modern use by the Italian of the Renaissance. The modern builder contributed only the stone and lime. We could not fancy Chinese pagodas or even the magnificent structures of the Mohammedan conquerors of India rising in their place. And yet the only reason why not is the Graeco-Roman mould of our taste and ideas.

W. J. ALEXANDER
Professor of English, University College
Toronto, Canada

The real defence of the study of Latin is bound up with a proper conception of what education is. If the

chief object in life, whether of the individual or the community, is to attain material results, if the main purpose of education is vocational, then Latin must go. But if life consists in something else than the multitude of things which the individual or the community possesses, and if, in consequence, the purpose of education is to produce the highest character and intellectual development which inherited capacities, environment and circumstances permit, then a strong claim can be made for the importance of classical studies as an essential element in the best liberal education. * * *

If the classical languages have a sufficient recognition in the secondary schools there need be little fear about their position in the universities. On the other hand, unless the curriculum of the schools gives encouragement to the study of the classics, it is inevitable that neither Latin nor Greek will occupy a much better position than does Hebrew at present. If the natural age for acquiring language be passed before Latin and Greek are begun, a satisfactory knowledge is, we may say, impossible. But granted the needful preliminary training at school, it does not seem to me that there is any danger of Latin and Greek being neglected in the universities. Minds of the literary or philosophic type are naturally drawn toward the classics, where are to be found the beginning, for the western world, of the most important phases of literature, criticism, metaphysics, ethics, political theory, law and history. The importance of a first hand acquaintance with Latin, and especially with Greek, has an obviousness that makes argument superfluous. I will therefore close with a statement of my personal opinion as a teacher of English literature, that Greek and Latin are in this depart-

ment a matter of first importance. Where else can be found a mass of material that has exercised so profound and continuous an influence both on the form and on the thought of English writers?

C. H. GRANDGENT
President of Modern Language Association of America, 1919
Professor of Romance Languages, Harvard University

An eminent professor in a scientific school has been heard to declare that he would rather have, as advanced students of applied science, men who had devoted themselves to Latin than those who had spent their time on scientific studies; and his voice is one of many. College instructors in English composition are sometimes heard to regret that their pupils ever tried to write English at school. It appears to be the unanimous opinion of college professors of modern languages that their best pupils are those whose school years were given mostly to Greek and Latin, while their poorest are those in whose previous curriculum French or German or "science" was the principal factor. On the other hand, the boy from a good classical school finds that his college Latin, Greek and mathematics are the natural continuation of what he has already acquired; and his instructor, with no great upsetting or reviewing, simply takes him on from the point he has reached under the guidance of his former teacher.

It would seem, then, if our data and inferences are correct, that Latin, Greek and mathematics are so taught as to allow but little waste in the passage from one teacher to another, while in other subjects the apparent or real loss is most discouraging. Furthermore, school study of the classics furnishes not only an ex-

cellent basis for further work along the same line, but also the best foundation for studies of a different character; while modern language courses, in common with science and some other topics, far from fitting a pupil to take up new branches of study, do not adequately prepare him to continue what he has begun. It is likely enough that French and German, as taught today, are more effective than most of the other new studies, but they are still vastly inferior to the classics. And inasmuch as the modern tongues to a considerable extent have replaced Greek and Latin in the secondary school curriculum and in the ordinary college training, we cannot regard any instruction in them as satisfactory which does not produce results comparable to those derived from the study of the old humanities.

From time immemorial until our own generation the fundamental discipline of educated men throughout the civilized world has been derived from Latin and Greek, with more or less admixture of mathematics. The great writers, the imposing figures in history, the mighty scholars of every type have formed their intelligence on the classics; all that we revere in the intellectual past derives from that abundant source. The majestic tradition of classic study gives to the old humanities a dignity that newer branches of learning can never attain, unless it be after many centuries of like achievement.

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One can speak with real confidence only of one's own experience. For my part, I can say that, without the excellent classical training received in my youth, my work as a scholar and writer would have been quite impossible, and, as far as I can judge, the intellectual

element in my enjoyment of life would have been comparatively slight.

G. CHINARD

Professor of French, University of California

I should welcome any attempt to put Latin back into its old place in the curriculum of our secondary schools. Of all the languages it is the one which has the greatest educational value, and for obvious reasons:

It is simple in its construction, and yet has enough declensions and flexions to give the student an intimate knowledge of the exact relations of the words of a sentence to one another—a knowledge in which most of our students are sadly lacking. In this way it is a great help in the study of English.

In Latin of the classical period, at any rate, sentences are closely connected, and their order, dependence and relation are apparent and logical. One cannot translate Latin into another language without learning at the same time how to think logically, to make an argument forcefully, and to present one's ideas in a simple and clear way.

This mental discipline and this habit of looking squarely at facts and ideas, which made the Romans the greatest jurists the world has ever known, are qualities no man can afford to neglect, and Latin, in my opinion, is the shortest and easiest way to acquire or develop them.

R. SCHEVILL

Member Hispanic Society of America
Professor of Spanish, University of California

Students who wish to specialize in any of the Romance languages and literatures can have no adequate

knowledge or appreciation of the subject without good Latin foundation. We cannot study the fifth story of a house without taking into consideration what supports the whole edifice. But apart from this, a careful study of Latin literature gives the student a finer sense of the resources of his own speech.

### KUNO FRANCKE

President Modern Language Association of America
Former Professor of the History of German Culture and Curator of the Germanic Museum, Harvard University

I cannot conceive of what my work as a teacher of German literature and a student of German intellectual and artistic life would have been but for the thorough training in Greek and Latin literature and art which I received in German schools and universities. Indeed, if I were to single out the intellectual forces which more than any other have shaped my scholarly career, I should have no hesitation in saying that they were all drawn from Greece and Rome.

Although the chief efforts of my career have been directed toward subjects lying outside of classical studies, I owe to classical studies whatever success these efforts may have had.

### CALVIN THOMAS

Former President Modern Language Association of America
Professor of Germanic Languages and Literatures, Columbia University

If we set out from the idea that, quite apart from the exigencies of particular employments, the best thing that any man or woman can do in this world is to live on a high plane of aspiration and endeavor, and if we accept what seems to me a reasonable corollary of that

proposition, namely, that any one will be helped in so doing by knowing the best that has been thought and said by our greatest predecessors in their most inspired moments, then I can think of nothing more truly and largely practical than a real first hand knowledge of the ancient classics.

ALEXANDER R. HOHLFELD
President Modern Language Association of America, 1913
Professor of German, University of Wisconsin

Far more of our larger and stronger high schools than is the case at present should offer liberal opportunity for the study of Greek. The study of the Greek language and literature affords not only a training and culture of peculiar value, but it also leads to a richer and deeper understanding of many phases of modern art, literature and cultural thought. Many of the workers in the modern field have to be satisfied with studying Greek civilization through the medium of translations, but even at best this cannot compare with a study of the sources at first hand.

H. K. SCHILLING
Professor of German, University of California

I have always insisted that a high school course which aims at a liberal education, not merely at vocational training, must include at least one of the ancient languages. The term "general culture" still implies some first hand acquaintance with antiquity; and the best linguistic training is obtained by the study of both an ancient and a modern language.

## 12. HISTORY, POLITICAL SCIENCE, ECONOMICS, PHILOSOPHY, SOCIOLOGY

GEORGE LINCOLN BURR
Former President American Historical Association
Professor of Mediæval History, Cornell University

While I am not by any means an extreme advocate of the ancient classics, I could not be a teacher of history without recognizing their fundamental importance to every student who would know at first hand the history of European civilization or who aims at teaching or writing in the field of that history. Not only are the documents of that history, to this day, largely in Greek or in Latin, but during great periods, and in some quarters even to the present, these have been living tongues for communication between men and states; and so do they lie at the base of the thought, the literatures, the institutions, even the personalities, that make up the history of the modern world, that without an acquaintance with one or both of these tongues one lacks an essential key to the significance of it all. Even if one's study is narrowly to be confined to those modern lands and times whose vernaculars might rather seem fundamental, I believe that the best door to any scholarly knowledge or use of these is through the older tongues which make intelligible not only their origin and growth, but furnish a clue as well to all that dialectic divergence with which the students of history must deal at every fresh step in time or place.

With the study of history the study of language must always go *pari passu;* but scarcely less important to the student of history is that profound and constant influence of the classical literature in the Middle Ages

scarcely less than at the Renaissance, and with small abatement throughout the modern centuries—which can only rightly be measured or understood by him who has studied those literatures for himself.

So sensible are we at Cornell of the need of such a philological foundation-laying for work in history that we open to our freshmen few historical courses and advise them in their earlier college years to choose languages, if even at the cost of history.

### William Milligan Sloane

Former President American Historical Association
Professor of History, Columbia University

I never touched a trained mind yet which had not been disciplined by grammar and mathematics—grammar both Greek and Latin; nor have I ever discovered mental elegance except in those familiar with Greek and Latin classics.

### James Ford Rhodes

Former President American Historical Association
Boston

A writer of books, whether of poetry, romance or history, ought to know Latin well. The knowledge increases his acquaintance with English and facilitates his acquirement of French, Italian and Spanish. Latin and French are certainly indispensable to a liberal education. If the student has a linguistic turn of mind, he will compass Greek. He need not know Latin and Greek as thoroughly as a teacher knows them. Good translations abound, but it is a pleasure to read the great masters of literature in the original and to be able at need to criticise or approve the translators who have

extended the world's acquaintance with the classical writers.

The case is between Latin and Greek and the physical and natural sciences. The man who loves literature should choose the ancient languages. Let no one select the sciences on account of ease. The generalizations are attractive but they are in reach of any reader. When it comes to higher mathematics or physical or chemical laboratory work, earnest and constant exertion is the key to success. More boys are inclined to literature than to science. Literature and language are allied; and the foundation is Latin and Greek.

CHARLES H. HASKINS
Professor of History and Political Science
Dean of the Graduate School of Arts and Sciences, Harvard University

As a believer in the liberal education, I am of course interested in the maintenance of the classical ideal of culture and the studies which serve to support it; and as a professor of history, I can testify to the great advantage which students of sound classical training bring to their historical studies. As the field of human history lengthens, and the range of intellectual interests extends, readjustment is inevitable in relation to the study of Greek and Latin and their place in courses of education, but in this process we have great need to prove all things and hold fast that which is good.

EPHRAIM EMERTON
Professor of Ecclesiastical History, Harvard University

In reply to your request that I would write a brief statement as to the value of classical studies I beg to say that I regard them as an essential part of what I

still venture to call a liberal education. By that phrase I mean an education free from the controlling purpose of making a living. That I understand to have been always the meaning of the *artes liberales* as distinguished from professional studies, though this meaning has been grossly perverted in much of the modern discussion on the subject.

At the same time I am convinced that the present contempt of classical studies is very largely the fault of classical teachers themselves. They have been too prone to forget that no subject can have a humane effect in education unless it is taught humanely. The hope of a successful revival of interest in the classics depends, I think, almost wholly upon a recognition of this principle, and I rejoice to see some indications that it is being recognized and applied more widely and more fruitfully than for some time past.

As an academic person I have been waiting now for forty years, with an open mind, for the efficient substitutes for the classics and mathematics in the preparation of boys for the work of the college, but, if one may judge by results, these promised substitutes have not yet appeared.

GEORGE BURTON ADAMS
President American Historical Association, 1907-1908
Professor of History, Yale University

The relative value in general education of vocational studies and cultural studies cannot be argued here, but certainly the lack of those elements of cultivation and fine appreciation of higher things, which seem in the majority of cases most easily acquired by the study of the classical literatures, is a serious defect in the education of any man.

DANA CARLETON MUNRO
Professor of Medieval History, Princeton University

After watching the education of each of my children I am convinced that no other study in the high schools has the same disciplinary value as Latin.

HENRY OSBORN TAYLOR
New York City

So long as the most proper study of mankind is man, a knowledge of the classics must continue to form part of a humane education. For the last two thousand years, on through the decadence and "Christianization" of the Roman Empire, through the Carolingian period, through the Middle Ages, through the fifteenth and sixteenth centuries and the eighteenth likewise—they have been for each generation, according to its need and capacity, the eternal and elastic literary source of instruction and enlightenment upon the nature and character, the motives and the conduct of men. They afford a commentary upon the whole of human nature, and there is no substitute for them. They are also standards of excellence and beauty in human conduct and its literary expression—and again there is no substitute for them. For their best effect, they should, of course, be taught and studied in their own Greek and Latin. But a knowledge of them through translations may educate, instruct and enlarge men's minds, as Amyot's translation of Plutarch did in the sixteenth and following centuries.

BERNARD MOSES
Member United States Philippine Commission, 1900-1908
Professor of History and Political Science, University of California

I have had students of all courses in my classes in history and political economy, and I have generally found that those who came to the university with classical preparation have done the most satisfactory work. I do not hesitate, moreover, to state the opinion that, everything considered, the preparation afforded by the classical course in the high school is more valuable for the student, irrespective of the line of studies he is to pursue at the university, than any other course hitherto organized.

WILLIAM A. MORRIS
Assistant Professor of English History, University of California

Latin formed the backbone of my course in preparatory school. At this stage of my education I found it profitable in three ways: It was a most excellent discipline; it gave much assistance in the study and use of English through insight into word formation and formal grammar; it gave a new enjoyment of literature. My undergraduate study of the same subject in college served as a necessary preparation for my subsequent work as teacher in the high school, as graduate student and as college instructor. The person who undertakes research work in ancient or medieval history can do practically nothing without it. The writers and the college teachers of ancient history, today one of the most promising of all historical fields, must make a thorough knowledge of the ancient languages the foundation of their training. Medieval history, whether touched on

the political, the religious, the cultural or the institutional side, in the same way requires everywhere the use of Latin. Finally—what is of particular interest to me personally—the advanced study of the rise of the English Constitution and of the Common Law depends upon the same linguistic training.

HIRAM BINGHAM
Professor of Latin American History, Yale University

For any one who plans to work in South America, a knowledge of Spanish or Portuguese is absolutely essential to success. There is nothing that facilitates intercourse and proves a better "open Sesame" than a correct use of these two Latin tongues. Personally I have found my former study of Latin to be of the greatest value in acquiring a working knowledge of the South American *lingua franca*. I believe most heartily in the importance of classical studies for those who would prove welcome visitors in Latin America.

DAVID P. BARROWS
Director of Education in Philippine Islands, 1903-1909
Professor of Political Science, University of California

I regard a thorough training in the classics as the best of all possible approaches to advanced studies in political science. The freshman who reads certain chapters in Thucydides, or the Agricola and Germania of Tacitus, is already making an excellent start in the science of politics and institutions. I have recently read with my young son certain books of Caesar, and, accompanying it, we have read Col. Dodge's studies in Caesar's campaigns, so I am at this moment in a renewed way impressed with the value of Caesar as an

introduction both to military strategy and to the science of government in conquered territory.

The English are, above all other peoples, a political nation, and as is well known their governing class has been trained in its habits of thought, its practical dealing with human nature and its large grasp of affairs by a system of instruction that is to a large degree a mastery of classical writers, and to which in a great measure must be attributed their political mastery and vision.

NEWTON THORPE
Professor of Political Science, University of Pittsburgh

The thorough study of the Latin language, in addition to the help it gives in understanding the meaning of many words in our own tongue, habituates the mind to a degree of accuracy greatly desired in its every exercise. The Latin language affords a ready opportunity to test with approximate precision the interpretative powers of the mind, without the exercise of which no person can hope to be able to find himself or his subject. Accuracy, precision, the power to distinguish similars from dissimilars, and dissimilars from similars, may be acquired by systematic practice only, and the Latin language affords one of the easiest agencies towards these results.

HENRY W. FARNAM
President American Association for Labor Legislation, 1907-1910
President of the American Economic Association, 1910-1911
Professor of Political Economy, Yale University

For Professor Farnam's address see page 79.

### Frank A. Fetter

Commissioner New York State Board of Charities, 1910-1911
President of the American Economic Association, 1913
Professor of Political Economy, Princeton University

Acquaintance with some foreign language, with all that this implies in historical, sociological and psychological outlook and insight, is an indispensable part of a modern liberal education. And I believe that Latin is for us the language best suited to serve this purpose. If our English speaking youth were able to study in school but one foreign language, it would be better, both for cultural and for utilitarian reasons, to choose Latin rather than any other.

### Robert M. Wenley

Professor of Philosophy, University of Michigan

Ability to write decent Latin prose simply cannot be acquired without at the same time inducing the kind of mental organization which at length enables a man to go anywhere and do anything, as a great general phrased it. . . . And I draw the proof from my own experience. The most effective masters of the "positive" sciences known to me personally are invariably men who have first acquired the mental organization which the culture studies confer; of this fact they are quite aware themselves.

### G. M. Stratton

President American Psychological Association, 1903
Professor of Psychology, University of California

[On Mental Discipline]

The mind is something far larger than the particular items which it observes and hears. It is a wonderful

organism, with powers latent, powers developed, powers lost through disuse. Any schooling seems to me a failure that overlooks this, and regards the mind as a mere assembly of interesting ideas and of useful items of information. Education must train a person to will aright and to work, and to withstand inner and outer distractions, as well as to act not only with a sympathy for human beings near at hand but also with sympathy and with understanding of distant peoples and distant times. The findings of psychology all favor this richer conception of the human person, and it would be a grave mistake to suppose that the experimental work has proved that the idea of mental discipline is no longer tenable.

LAWRENCE COLE
Director of the School of Social and Home Service
Professor of Psychology, University of Colorado

It is my duty to teach the elements of psychology to large classes of sophomores in college. Despite many simple experiments and the newer methods of instruction, the subject is still somewhat abstract. I cannot transfix the mind on a dissecting needle and pass it around for inspection as one might a cockroach or a butterfly. Consequently, students find that the subject does not disclose its secrets without considerable study. The difficulty, as far as I can define it, lies in this. Besides learning to see objects, the student must learn to make nice but definite discriminations, must form certain general notions, and must, above all things, learn to detect relations. Now analysis, generalization and relational thinking are developed and trained above all things else by the student of Latin and Greek. For this reason, your classicist is always an educated man.

He finds in psychology a subject both of training and information, and he promptly goes to the deeper levels of that information.

The evidence I have reviewed shows, I think, that high school students would be immensely benefited by a return to the study of Latin and Greek.

A. G. KELLER
Co-editor of the *Yale Review*
Professor of Sociology, Yale University

It is not enough to have only one strongly disciplinary elementary study. Perhaps three were too many, but two are not. The student who knows the Latin grammar, who has carefully read the required texts and who can render simple English into Latin has been under mental discipline for which the present writer, for one, sees no effective substitute. Greek would be as good and perhaps better for the purpose; but now it is Latin or one of those substitutes that are easy and interesting. So long as Latin holds this unique position in the sphere of elementary education it can be sure of retaining the support of those who want the young to encounter a steady and solid resistance and to overcome it, at least in some measure, by straining the powers and so strengthening them.

A person who feels this way about the case of Latin does not particularly care whether or not those for whom he is responsible, to the extent of his power and influence, come later to blame him for permitting them to waste their time on Latin for no evident result. A good many of us could not possibly solve a quadratic equation that was anything more than baldly unadorned; but we are glad we applied ourselves to algebra. For

the values of application come from the study and not from the results alone; hence they are culled unconsciously all the time, even though the final result upon which the eye is continually fixed seems insubstantial. The reason why so many parents want their children to study Latin is, whether they render count to themselves of their motives or not, because it is hard.

To get, then, at the cultural value of Latin literature in the original, the price, if that means the actual learning of the Latin language, is too great. Several, also, of the asserted practical utilities of acquaintance with Latin will not stand examination as being worth the cost. But, apart from such results, amidst a welter of whimsical, easy, or merely interesting and playful subjects, Latin stands alone with mathematics. The two are not interchangeable, as were, virtually, in this respect, Greek and Latin. There is no substitute in sight for either one. Hence both, and in particular Latin, whose case we have been considering, should be sustained pending the rise of a substitute of equal or superior disciplinary value along similar lines. In this role of a disciplinary study Latin shows itself worth the cost.

## 18. FINE ARTS

### Trustees of the American Academy in Rome
### New York City

I beg herewith to transmit to you a copy of a resolution, passed by the Executive Committee at its meeting held Tuesday, April 10, 1917, in accordance with the instructions of the Board of Trustees in its meeting of March 13, 1917:

Whereas the fundamental idea in establishing the American Academy in Rome was the opinion of its Founders that the atmosphere of classical antiquity was essential to the study of the Fine Arts, and

Whereas the amalgamation of the Academy with the School of Classical Studies in Rome has already given convincing proof of the wisdom of this opinion, be it here

Resolved that the American Academy in Rome hereby registers its conviction that the study of the classics in all academic institutions in the United States is an essential part of a liberal education and should be encouraged.

Very truly yours,

C. GRANT LA FARGE,
Secretary.

EDWARD ROBINSON
Director of the Metropolitan Museum of Art
New York City

Is it not a strange reflection upon our civilization that in this twentieth century, when the world knows more than it ever knew before, and ought to be so much the wiser, we should be called upon to defend the study of the classics—the very study which five centuries ago let daylight into the minds of men, and prepared the way for the development of human intelligence which has been in progress ever since? Until the present generation the value of a familiarity with Greek and Roman thought, as expressed in their literature, their history and their art remained practically unchallenged as an essential factor in a college curriculum. Are we now

to assume that this long experience was all a mistake, or must we agree that the influence of these studies, however beneficial to our forefathers, has now played its part and must give place to something of a more practical nature?

We must admit that this is an age of facts. The names which will be handed down to posterity as representing the greatness of our time are those of scientists, inventors, discoverers, men who have added new facts to the knowledge of the world rather than those who have broadened its field of imagination in literature and the arts. Yielding to this spirit, believing that the practical is now the chief, if not the sole, aim of the higher as well as the lower education, some even among our more eminent educators make that the one test, and in it the classics are found wanting; therefore they must go.

It is well that the study of the classics should be put to the test under present conditions, because they give to those who believe in it the opportunity to show whether that belief is founded upon anything more substantial than tradition, and whether the accumulation of facts alone constitutes an education in the high sense in which we wish to see it regarded in America.

For my own part, I have no doubt of the result, if the question can be decided upon its own merits, as it certainly will be in the long run, and I look upon the present movement against classical studies as an attempt to hold back the tide which will surely sweep away such obstacles and resume its old course. I cannot think that this opposition will have any lasting effect, because there are too many men and women who feel as I do that a knowledge of Greece, and what she not only has done but still continues to do for the world, is an essen-

tial part of every cultivated man's equipment, and that this knowledge should be gained at first hand through what she has left us, namely, her language, her literature and her art. Next to the history of his own country there is none so stimulating to an American youth as that of Greece, with its high ideals, its struggles to introduce popular government into the world, and the warnings of its later stages, when the ideals had been lost. Her poets and philosophers have shown us, as have none others since, the flights of which the human mind is capable; and in her arts she has provided us with standards and principles of beauty which have been neither equalled nor supplanted by any other nation. The flame burned but a short while, yet its light has illumined the world wherever it reached, and it would be an undying reproach if we were to allow it to be extinguished or dimmed in our time.

ARTHUR FAIRBANKS
Director of the Museum of Fine Arts
Boston

To my mind the fundamental reason for emphasis on classical studies in education is not their general disciplinary value, not their practical value for students of modern languages including English, not the literature they open to the student, not the facts that these subjects are perhaps better taught than others in our secondary schools, important and far-reaching as these considerations are. The fundamental reason, I believe, is that Greek and in a different way Latin are such perfect means for the expression of man's thought. Inevitably though often unconsciously the study of language is the study of the human mind through its best

means of expression. We need in education today, along with our study of things, the study of mind and that through language. This purpose, so far as I can see, is not fulfilled by the study of modern languages in at all the same degree as by the study of Latin and Greek, nor can we expect that it should be. Accordingly I believe that classical studies should have a larger place in our educational system than they hold today.

### R. Clipston Sturgis

Chairman of Committee on Education, American Institute of Architects
Boston

Mr. Mauran has asked me to write a brief statement about the value of the classical studies in general, and perhaps more particularly for those who are to practice the profession of architecture. Quite apart from the fact that Greece and Rome have made such a fundamental contribution to architecture in the development of the orders, a knowledge of the history and culture and civilization of Greece and Rome is of vital importance for every educated man. If however one looks back on one's own study of the classics in school and college, one feels that instead of getting an insight into the spirit of the times one was simply bored, and bothered with needless details of grammar. If the acquisition of a classical language necessitates that kind of training then, in my judgment, it would be better to study the classical periods in English, and through good translations. I believe a more sympathetic understanding of the art of Greece would be developed from reading Murray's translations of Euripides than by the study of Greek grammar. I believe that if a real interest were aroused in a student through good lectures,

well illustrated, on architecture and sculpture of Greece, and if the student were familiar with her literature, he would be stimulated to follow his study further by acquiring a knowledge of the original tongue used by the men who produced these masterpieces of literature and art.

I therefore heartily believe in the study of the classics, but I believe these studies should be so conducted as to chain the interest and attention of every student. In my judgment no student will carry away anything of vital importance to him in his life from any study, unless, through keen interest in the subject, his mind is absolutely fixed upon it.

The study of the classics would then begin by giving the child some knowledge of the vital history of Greece and Rome, emphasizing rather the arts than wars and conquests. This should be followed by some study of the literature of Greece and Rome, and if these studies awakened a real interest and desire to go further and know the beauties of the Greek and Latin tongues, then, and not until then, should the student be given opportunity to study in the original.

ALLAN MARQUAND
Professor of Art and Archaeology
Director of Museum of Historic Art
Princeton University

It is difficult to put in a few words my sense of our indebtedness to Greece and Rome. The greater part of all that is beautiful in modern civilization may be traced to classic sources. This is true not only of the arts of design, but of philosophy, literature, and to a lesser, but still notable degree, of science.

It is obvious that for an archaeologist a knowledge of the classic languages is indispensable. Otherwise how could he decipher inscriptions, read documents, and interpret the grand series of monuments that remain to us from classic, mediaeval and Renaissance times? And what is true for the archaeologist is true also for the toilers in many other fields of learning, and for every liberally educated man as well.

One nation in recent years has endeavored to efface from its language and its life all traces of classic influence. As a consequence it has eliminated delicacy, grace, beauty of form and color, and has set in its place a coarse, inhuman, brutal, monstrous Kultur.

FRANK JEWETT MATHER, JR.
Professor of Art and Archaeology, Princeton University

My college study of the Greek and Latin classics has given me permanent standards by which I may weigh the pleasures of literature. The smattering of Greek which I still keep gives me hope of resuming delightful studies in the leisure of old age.

Latin has remained a chief utility to me. It has widely opened the doors of history. All the greatest products of the human mind from the dawn of the Christian era to the Renaissance are set down not in the vernacular tongue but in Latin. I owe to my college training that I can and do read the great works of the Middle Ages in the sonorous Latin of the Christian fathers, in the Franciscan books of devotion, in chronicles and charters, in the songs of the vagrant students, in the pungent satires of the humanist reformers. Any literary culture I may have acquired has been largely

due to such reading. Through my knowledge of Latin the splendor of the Middle Ages has become alive to me. It is the only road to that vision.

Latin has also been a permanent utility in another way. With it as a background I have readily learned other tongues. I cannot remember when I learned Italian and Spanish. I simply read them when I needed them. Latin is the key to the modern languages.

The question of Greek and Latin is simply whether the past of culture has value for us or not. If one honestly believes that most of the best thinking and beautiful writing dates from after the discovery of America, then the classics are sheer luxuries like Old Norse or Finnish. I prefer to think that it is better to read Plato than to read Herbert Spencer, and that no education is real, from the point of view of history and humanism, which leaves the classics out.

J. G. HOWARD

Director of The School of Architecture, University of California

I consider Latin one of the most fruitful subjects of study to which I have ever given attention, in spite of the fact that I had only a preparatory school training in it, at the Boston Latin School, and was not very much of a scholar at it even so, I fear. It has always been a source of great refreshment and interest. It forms a basis of keen enjoyment of literature of all sorts, technical and otherwise. It enlarges the vision and enriches the sympathies. While it may not be immediately and demonstrably contributive to an architect's education in a practical way, yet I feel that an architect is immensely benefited by having passed through a good stiff training in Latin, and I always

rongly recommend its study to young persons who ropose to become architects.

THOMAS HASTINGS
Architect
New York City

For Mr. Hastings's address see page 88.

RALPH ADAMS CRAM
Architect
Boston

Without intelligent knowledge of the past, as it has nown itself in its religion, its philosophy, its social organization and its art, it is impossible to interpret history, to comprehend the present or to determine the ıture. The socalled "cultural" studies, emancipated rom psychology and philology, and dealt with as liv-ıg forces, not as phenomena of biological determinism, re the only basis for this constructive knowledge. Of ıem all Greek and Latin, taught as vital and enduring :alities, not as "kitchen-middens" for the experimental elving of the philological antiquarian, are of the great-st excellence.

They are the languages of the great epochs of vital ivilization, Hellenic, Roman, Mediaeval, and through ıem alone we come to the heart of the true culture that :ands as an eternal reproach to our own barbarism. :ach has, in itself and as a language, something of the uality of the great past, lost beyond recovery in trans-ıtion. They are the shrine wherein is preserved the ıduring glory of man, and if you cast away the shrine ıe jewel is lost. For them there is no substitute, be-ond them no equal revelation of eternal values. They re the old lamps we have sold for the new of unscrupu-

lous traffickers in Brumagem trinkets. Through Greek and Latin, and through them only, can we come into actual personal contact with that great past which is the only sound basis of enduring culture and righteous civilization. We have tried to cut ourselves off from history, to deny the sufficiency of long established moral and intellectual and aesthetic values, to lift ourselves by the boot-straps of modernism; and our attempted rejection of cultural education, and of the eternal languages of eternal things, is the adequate symbol of our folly. The present estate of the world is a sufficient commentary.

Speaking as a follower of one of the arts, I can only say that Greek and Latin, as languages, are of the *esse* of the art which was the recording of the crowning civilizations—Hellenic, Roman and Mediaeval—of which they themselves were the voicing. If the "artist" of today knew the arts of these culminating eras, and the quality of their culture through the languages themselves, there might be less bad art and less world warfare and a more creditable contemporary civilization.

IRVING K. POND
Architect
Chicago

It is altogether because Greek and Latin have been retained in the curriculum that rare scholars have risen from the mass and been given opportunity to interpret the classics and make, however inadequately, the application to modern life; and as life is ever changing it would seem natural that new interpretations and applications should from time to time be necessary and desirable; and this, I feel, can come only through a

knowledge of the languages gained primarily in the schools and a knowledge of life gained primarily through experience.

As to the value of the classics, take just one phase: There can be no real understanding of our own art today unless we understand the art of the races which bequeathed their heritage to us; and until we comprehend the character and value of the heritage we cannot realize the extent to which we have squandered and dissipated it or left it unemployed, and, comprehending, bring ourselves to a determination to conserve the gift.

Now art is a visible symbol of life and that we may not only behold the symbol but recognize its validity we need both an interpretation of the form and an understanding of the philosophy, the religion, the ethics, indeed, of all the factors of the life underlying the form. All this may best be gained by drinking at the fountain head of expression in the original. If the classics are so taught that the thought and the life which the language clothes are to be of paramount interest, rather than grammar and syntax, then the classics hold a high place in the curricula of the schools. If they are to be character moulders, rather than developers of vocalizing automata, the classics have a function in a live system of education today—and the times call for no other system. The times call for powers of thought, and thought is reaction to experience.

Greek and Latin are the embodiment of thoughts which represent experience; the experience being the vital thing. The language must be familiar to one who would best comprehend not only the thought but the delicacy and refinement of expression, and it is in that light that the language must be studied. Is it asking

too much that the teacher be able to expound the mainsprings of the thought as well as describe and hear recitations upon the technical forms in which the thought is embodied? Perhaps that condition which impels the calling of a conference on classical studies, and for an expression of opinion from men in non-academic life, arises not so much from the obsolescence of the classics as from a lack of comprehension on the part of curriculum builders and teachers as to the real relation existing between Greek and Latin thought and the thought of today. It might be of interest to pupils in schools today to know and be able to see at first hand how Greek idealism has affected our life and thought for the better and how Rome has impressed the form rather than the true spirit on our art and institutions. And where better can the initiative be taken than in the schools? Classical studies are not to be eliminated from the school curricula but are to be vitalized and made to bear directly upon the life and thought of our own age, and upon character development, for which life and the ability to think are given us.

E. L. STEWARDSON
Architect
Philadelphia

I am very much in favor of a classical education as a basis for architectural as well as any other professional education.

DANIEL CHESTER FRENCH
Sculptor
New York City

I find myself instinctively on the side of classical education. Perhaps reluctance to give up the ways our

fathers trod influences me unduly, but, aside from sentiment, I can but believe that in this utilitarian and material age this study of the classics is needed, not only for the peculiar discipline of the mind that it engenders but for the very fact that it may serve no more definite educational purpose than that of general culture. To train the youth to think that nothing is worth his while to study but that in which he can see a definite return in dollars and cents would tend to create a mercenary point of view inimical to any spiritual development, and I can imagine no influence that would have a more disastrous effect upon the idealism and high aspirations that exist in most young people.

EDWIN H. BLASHFIELD
Painter
New York City

I can't imagine anyone being entirely contented without *some* acquaintance with *some* of the classical people. They were such very good society! If Dante and Shakespeare and Milton got such a lot of comfort out of them, might not we find some really solid, even "practical," advantage in their company? Surely they are stimulating. If elegance, force and terseness are desirable qualities, surely we may find them in their written words, and if visible beauty is worth while, where may you find it more perfect (or more perfectly pedestalled) than on the rock of the Athenian Acropolis? If we care about getting at the roots of almost anything, we must care about the antique people; for if you dig a little anywhere in Europe west of the Rhine or south of the Danube, you come upon them.

Everybody wants to be "practical" nowadays. But

if you cannot break the continuity of literature or of architecture—and you *can't*—is it practical, or even safe, to decide on any one point at which you can with advantage *ignore* continuity?

HORATIO PARKER

Professor of Music, Yale University

Experience of many years in college life at Yale has shown me that the best musicians have invariably shown better general scholarship than those who were musically poorer. Fine mental texture is as needful and as profitable in music as in any other work.

There is no question in my mind of the usefulness of classical studies, nor even of their essential character in the liberal education without which a creative musician of power can never do his work thoroughly well.

## 14. ORIENTAL STUDIES

STATEMENT FROM LORD REDESDALE'S MEMOIRS

Vol. I, page 93

The best Oriental scholars whom I have known have all been men who attacked their Eastern studies armed with the weapons furnished by a classical education. In China Sir Harry Parkes was an admirable oral interpreter. But he, himself, as I have said elsewhere, always regretted his want of classical training—nor would it be possible to compare him with that great scholar, Sir Thomas Wade. In Japan Von Siebold was as fluent a talker as could be found. He was the son of the famous physician and naturalist, who was attached to the Dutch Mission at Deshima, and had learnt Japanese *ambulando*. But it would be childish to

name him with such learned men as Satow, Aston and Chamberlain, men who brought the training and literature of the West to their studies in the East. It is not without significance to note the great respect which such men were able to command, whereas the mere parrot, however clever, was held in little more esteem than a head waiter. Think of Basil Chamberlain appointed to the Chair of ancient Japanese literature in the University of Tokio.

And our own beautiful English, the language of Chaucer, Shakespeare, Milton: will that not suffer if a false utilitarianism should succeed in banishing the classics from our schools?

MAURICE BLOOMFIELD
Professor of Sanskrit and Comparative Philology
Johns Hopkins University

I believe firmly that the classics are the most essential factor in a liberal education.

I am almost stunned by one factor of the modern educational theory, namely, its failure to furnish common ground for educated men to meet upon. About forty years ago it seemed as though natural science, that is to say, its intellectual and imaginative outcomes, might furnish a substitute for the common property shared in the classics by all educated men. It was the day after Darwin, the day of Tyndall, Huxley, Buechner, Wallace and others. But the riddle of the cosmos proved too intricate. The facile appeal of evolution has been modified, if not replaced, by more austere theories which are scarcely intelligible to the layman. The various modern literatures are segregative and brew chauvinism. The classics alone are the common priceless pos-

session of the Western world, and a really communal liberal education without them is very hard to imagine. I forgot to mention the social sciences are too unstable for the purpose mentioned; they follow *after* historical events of all sorts, and are under the domination of tangled circumstances and the will of individuals. Hence the rise and fall of such economic interests as the tariff question which seemed at one time to bind together the intellects of all men.

I am not fitted by my occupation to make a really substantial plea for the classics. This letter, as well as my printed utterances, are impressionist and nothing more. I mean them both, at any rate, to convey my settled conviction that a really liberal education without the classics is not to be imagined.

RUDOLPH E. BRUENNOW
Late Professor of Semitic Philology, Princeton University

I am most decidedly of the opinion that an intimate knowledge of the history, literature and political institutions of ancient Greece and Rome forms the essential basis for the correct understanding of the intellectual, political, and social development of the later European nations down to the present time, and that it should therefore, be required of every one who aspires to play a part in that development, or to exercise functions whose roots still derive a large part of their nourishment from Hellenic and Italic soil.

It is idle to assert that the study of the natural sciences can take the place of the classical languages. For those studies have reference only to the objects of the outer world, not to the intellect itself, and are only then really educative in the sense of giving an intellect-

ual training when they involve mathematics, as in the science of physics. The acquisition of the mere facts of natural science has no educative value whatever by itself, but only as a basis for the exercise of the generalizing faculty, and this faculty is best developed when the intellectual relations are brought to their highest point by means of the study of their best means of expression.

To conclude, I should consider it almost a crime to deprive future generations of the opportunity of developing their intellectual faculties on the broadest basis by debarring them from the use of the most powerful engine that has ever been devised for the attainment of that end.

MORRIS JASTROW, JR.
Professor of Semitic Languages, University of Pennsylvania

I am a believer in modernizing our system of education so as to cope with present conditions of life, but I also believe no less strongly in the desirability of encouraging in every possible way the study of the classics. The two ideas are not incompatible, though this appears to be an opinion commonly held. Educational methods are subject to constant change and it is right that they should be, for every age ought to develop its own system. This applies particularly to a period like the present, dominated to so large an extent by discoveries of a far-reaching character in the domain of the natural sciences and which have so largely affected modern thought, our attitude towards things in general and our standards and method of life. I believe that in accordance with these changed conditions, education, particularly of the very young, should concern itself

very largely with developing knowledge of nature through observation and experiment and should also seek to introduce the young, through manual training and other means, to an appreciation of the practical sides of life, to an understanding of the industrial arts which play such a large part in modern economy—in short to lay emphasis on the necessity of obtaining knowledge that is primarily useful.

At the same time there are other aspects of modern life which need to be understood and which do not—primarily at least—fall within the category of the useful and practical. I have not in mind now what is conventionally known as the training of the mind. That undoubtedly can be accomplished through any subject which is studied *intensively* and which demands an exercise of one's mental faculties. The aim of the cultural subjects is, as I take it, to enlarge one's vision, to make one appreciate the forces underlying civilization, to give one a taste for good reading, for music, for art, aye, for philosophy, for an understanding of the fundamental problems of the universe with which man has grappled ever since he began to think, and without which one may become a religious automaton, but never reach out to what religion really is and what part it has played in the world's history. Now, the value of the study of the classics among the cultural subjects rests, if I mistake not, ultimately on the dependence of modern culture upon the standards and ideals developed in ancient Greece and Rome. I do not mean, of course, to assert that Latin and Greek are the only foundations of modern civilization, but certainly they constitute most important stones in that foundation. It is not impossible, though almost impossible and certainly very diffi-

cult, to get an appreciation of Greek and Roman civilization without some knowledge at least of Latin and Greek. The language of a people not only reveals its genius, but is, as a matter of fact, an expression of the intellectual life of the people. A knowledge of the language is, therefore, the most direct method of approach toward an understanding of any particular civilization which has left literary remains. It means going directly to the source for a grasp of Greek and Roman ideas, of Greek and Roman modes of thought, of Greek and Roman contributions to the intellectual, political, social, philosophical and religious treasury of mankind; and I hold that even "a little Latin and less Greek" is a better approach than if we depend entirely upon translation as a medium. As the late Dr. Furness said, in a farewell address to the students at the University of Pennsylvania, "If you cannot drink deep out of the Pierian spring, in heaven's name, take a sip." It is manifestly impossible, for reasons that it will be superfluous to set forth, for any large proportion of those who study some Latin and a little Greek to become proficient in these languages. We should neither expect the impossible, nor is it desirable even to strive for it. The purpose of a high school or a collegiate education is not to develop a specialist in any field, but to produce an all-round man or woman, prepared to take up that special province which each one selects (or has selected for him) as his life's work.

As for those who wish to take up scholarly pursuits, no matter in what field, a knowledge of Latin and Greek is of such invaluable and direct aid that it may properly be called indispensable. Unless one can acquire the scholarly attitude, one can never be a scholar

in the real sense. Whether it be in the field of literature, mathematics, archaeology, philology, medicine, law, or even any of the natural sciences, or engineering or mechanics, provided one has the ambition to pass beyond merely practical application, the direct approach toward the two great civilizations of the past, of which Europe and America are the direct heirs, is more certain of creating the indispensable scholarly attitude than anything else that has so far been tried. That direct approach is the study of some Latin and some Greek—and by "some" I mean as much as one can get. A substitute "something just as good" may some day be found, but the discoverer has not yet appeared on the horizon. It was, I believe, Sydney Smith who made the oft quoted remark that the Lord might have created a more luscious fruit than the strawberry, but it is certain that He never did.

If one believes that a thoroughly modern system of education needs to be supplemented by due consideration for purely cultural subjects, I do not see how one can escape the conclusion that the direct approach through the study of the classics is an essential factor in the endeavor to produce what, for want of a better term, we may designate "an all-round" man or woman. Let me emphasize once more that in this statement I have not in mind the scholar, for whom, as I have tried to point out, Latin and Greek is so valuable an adjunct in creating in the individual the scholarly attitude as to justify one in saying that it is indispensable. My plea is for the man or woman of general culture, and I am not urging proficiency as the goal for this large class, but only some Latin and, if you choose, not as much Greek, merely because the study of these languages is

the direct and, as I venture to think, for this reason also the easiest approach toward an understanding of an important section of mankind's history and achievements which directly concern us of the present day.

## BRITISH AND FRENCH STATEMENTS

### Joint statement of Viscount Bryce and others

First published in the *London Times*, May 4, 1916

Under the shock and stress of the war the aims and methods of education have to be considered anew. This reconsideration, in the special conditions of the time, brings with it a risk that we may ignore elements in education vital in the formation and maintenance of national character. A great war, in which material means and technical skill are the most obvious factors in deciding the issue, inclines a nation to prize these to the exclusion of forces finally even more important; and if in our reforms we fix our eyes only on material ends we may foster ourselves that very spirit against which we are fighting today.

At a time when the energies of the nation are necessarily concentrated on other matters sweeping changes are proposed without their effects being thought out. It is of the utmost importance that our higher education should not become materialistic through too narrow a regard for practical efficiency. Technical knowledge is essential to our industrial prosperity and national safety; but education should be nothing less than a preparation for the whole of life. It should introduce the future citizens of the community not merely to the physical structure of the world in which they live but

also to the deeper interests and problems of politics, thought and human life. It should acquaint them, so far as may be, with the capacities and ideals of mankind as expressed in literature and in art, with its ambitions and achievements as recorded in history and with the nature and laws of the world as interpreted by science, philosophy and religion. If we neglect physical science we shall have a very imperfect knowledge of the world around us; but if we ignore or subordinate the other elements of knowledge, we shall cut ourselves off from aspects of life of even greater importance. Even physical science will suffer. Some of its most distinguished representatives have strongly insisted that early specialization is injurious to the interests they have at heart and that the best preparation for scientific pursuits is a general training which includes some study of language, literature and history. Such a training gives width of view and flexibility of intellect. Industry and commerce will be most successfully pursued by men whose education has stimulated their imagination and widened their sympathies.

It is our conviction that the nation requires scientific method and a belief in knowledge, even more than physical science, and that the former is by no means identical with the latter. We might enthrone physical science in all our schools without acquiring as a nation what we most need, the persuasion that knowledge is essential to success and that this knowledge means facts laboriously gathered, wisely selected and carefully tested. This scientific method is not the peculiar property of physical science; all good work in all studies is based upon it, it is indispensable to law, history, classics, politics and all branches of knowledge rightly understood.

What we want is scientific method in all the branches of an education which will develop human faculty to the highest possible degree.

In this education we believe that the study of Greece and Rome must always have a large part, because our whole civilization is rooted in the history of these peoples, and without knowledge of them cannot be properly understood. The small city communities of Greece created the intellectual life of Europe. In their literature we find models of thought and expression and meet the subtle and powerful personalities who originated for Europe all forms of poetry, history and philosophy, and even physical science itself, no less than the ideal of freedom and the conception of a self-governing democracy; while the student is introduced to the great problems of thought and life at their springs before he follows them through the wider but more confused currents of the modern world. Nor can it be right that the educated citizens of a great empire should remain ignorant of the first state that met the problem of uniting in a contented and prosperous commonwealth nations differing in race, temper and culture, and which has left so deep a mark on the language, law and political conceptions of Europe. Some knowledge of Latin is indispensable for the intelligent study of any one of these things, and even for the intelligent use of our own language. Greece and Rome afford us unique instances, the one of creative and critical intelligence, the other of constructive statesmanship. Nor can we afford to neglect the noble precepts and shining examples of patriotism with which their history abounds.

In urging this we do not commit ourselves to defending the present system of classical education in all its

details. Still less do we claim for it any artificial privilege. We cordially sympathize with the desire to strengthen the teaching of modern history, of modern languages and of the literature of our own country. Further, we fully accept the importance of promoting scientific research, of extending scientific instruction in schools where it is still inadequately provided and of improving the quality of science teaching; and we desire to cooperate with the representatives of these studies in ensuring them a due place in our national education. At the same time we would point out that much criticism of our schools seems directed against a past state of things, and ignores reforms which have been already effected. It is sometimes forgotten that the teaching of physical science is compulsory in all State aided secondary schools, that of Latin, and of course of Greek, in none.

(Signed)

Bryce
J. B. Bury
Randall Cantuar.
Cromer
Curzon of Kedleston
Alfred Dale
F. W. Dyson
Esher
H. A. L. Fisher
Edward Fry
A. Geikie
Alfred Hopkinson
F. Huth Jackson
Frederic G. Kenyon
Horace Lamb
Walter Leaf
Donald MacAlister
Gilbert Murray
W. Osler
C. Oxon.
W. Ridgeway
E. H. Seymour
G. O. Trevelyan

## Manifesto of The French Academy

nifesto, signed May 18, 1911, by all the members
French Academy present at the session of that

a time when on all sides and in all domains the
usness of French traditions is apparently weak-
a revival of the national ideal is more than ever
ary.

hatever we do, our origins, our language, our
render us accessory to a past which extends from
liest epochs of our history down to our own age.
is truth is systematically forgotten when we lay
ves liable to discrediting classical culture and the
ities, the sap which permeates deeply our medi-
ean civilization and which has not yet brought to
all its flowers. The genius of our race owes it to
o preserve and cause to wax this creative force,
eminate it abundantly in the world. But this is
le only on condition that it is drawn up always
e very roots of our civilizaton.

ere is no lack of harmony between scientific train-
d the humanities, which, far from constituting a
school of elegance, form the best exercise and
rest discipline of the mind.

ere is no longer any antagonism between the hu-
es and modern society, which, to escape turning to
ogism, requires an intellectual élite. The richest
of this élite is in the people, if only the means can
nd of rendering the humanities accessible.

us it is that, quite apart from a spirit of partisan-
en can rally to the standard of the humanities.
is important to collect all scattered forces; the

first step in this direction is to organize the defence of French culture through permanent and concerted action, though without political complexion or aim."

To this movement the following members of the Institute gave their approval:

MM. Emile Ollivier, Alfred Mézières, le comte d'Haussonville, Jules Claretie, Pierre Loti, Thureau-Dangin, Paul Bourget, Jules Lemaître, le comte de Mun, Gabriel Hanotaux, Henri Lavedan, Paul Deschanel, Paul Hervieu, Emile Faguet, le marquis de Vogüé, Edmond Rostand, Frédéric Masson, René Bazin, Etienne Lamy, Maurice Barrès, Maurice Donnay, le marquis de Ségur, Francis Charmes, Jean Richepin, Henri Poincaré, Eugène Brieux, Jean Aicard, René Doumic, Marcel Prévost, Henri de Régnier, Henry Roujon, Denys Cochin, de l'Académie française.

MM. Perrot, Senart, Schlumberger, Héron de Villefosse, Longnon, de Lasteyrie, Barth, Babelon, Omont, président; Léger, Valois, Chatelain, Haussoullier, Scheil, Prou, Joret, Cordier, de l'Académie des inscriptions et belles lettres.

MM. Jordan, Henri Poincaré, Emile Picard, Humbert, Léauté, Lecornu, Wolf, Grandidier, Bassot, Violle, Amagat, Gautier, Lemoine, Haller, Le Chatelier, Douvillé, Termier, Prillieux, Zeiller, Chauveau, Perrier, Bouvier, Henneguy, Bouchard, Guyon, d'Arsonval, de Freycinet, Haton de la Goupillière, Adolphe Carnot, Alfred Picard, Carpentier, de l'Académie des sciences.

MM. Jean-Paul Laurens, Detaille, Cormon, Dagnan-Bouveret, Lhermitte, Collin, Denys Puech, Injalbert, Saint-Marceaux, Verlet, Pascal, Nénot, Moyaux, Girault, Saint-Saëns, Massenet, Paladilhe, Th. Dubois,

G. Fauré, Lafenestre, Guiffrey, Aynard, Richer, E. de Rothschild, J. Comte, de Selves, de l'Académie des beaux arts.

MM. Alfred Fouillée, d'Haussonville, Charles Benoist, de Francqueville, Bétoland, Renault, Morizot-Thibault, Paul Leroy-Beaulieu, René Stourm, E. d'Eichtal, P. Beauregard, Colson, Ronquain, Chuquet, Faguiez, H. Welschinger, P. de la Gorce, Imbart de la Tour, Xavier Charmes, Lafébure, Voisin, de l'Académie des sciences morales et politiques.

Translated from the *Revue Universitaire*, 1911, II, pp. 62-63.

## Statement of M. Sarraut

Minister of Public Instruction

In February, 1915, M. Albert Sarraut, Minister of Public Instruction, refusing to accept a proposal looking toward a certain modification of the requirements for the admission to higher scientific studies in the French universities, wrote:

"It seems to me that if this modification in the actual regulations were accepted those having in view medical studies would find it still more easy than at present to obtain remission of the bachelor's degree. . . .

"I regard the bachelor's degree as in practice furnishing the necessary guarantee of the classical study which makes it possible to follow with real profit the courses of the universities. . . . I do not think that I ought to extend facilities which have the drawback of damaging that classical culture the high educational worth of which present circumstances cause us still more clearly to understand."

From the *Bulletin Administratif du Ministere de l'Instruction publique*, February 27, 1915; see *Revue Universitaire*, 1915, I, p. 116.

## Opinion of Leading French Ironmasters

**Extract from letter of President Guillain in behalf of the *Comité des Forges* (French Forges and Furnaces), and addressed to the Minister of Public Instruction in 1911.**

After having affirmed that young engineers are for the most part incapable of expressing their ideas in clear and well composed reports the letter continues: "This incapacity has not only the effect of diminishing the value and the serviceable production of our co-workers, it has, furthermore, the great inconvenience of diminishing to an extraordinary degree the number of men whom the keenness and the breadth of their intelligence, the accuracy and depth of their judgment fit to direct great businesses, to produce new ones and to maintain France in the place which in spite of her lack of natural resources her clear genius has been able to assure her in the van of progress in the industrial arts and sciences.

"It appears to us . . . that this decay in the general culture of our youth must find its cause not only in the different reforms of secondary education which we have seen introduced during a number of years and which have found their complete expression in the courses of study of 1902 but also in the spirit which animates today all university education, and which, to increase the number of subjects put within the reach of our youth, dispenses more and more with the painful but fruitful discipline resultant from personal effort. At this very time, if modern education is not giving us that which had been promised to us, young people well equipped for life and thoroughly versed in foreign languages, what has been left of classical instruction no longer guarantees to the great schools, charged with the training of the future captains of national industry, material

copiously and forcefully enough cultivated to receive properly the higher training which these institutions bestow.

". . . We permit ourselves to call to your attention the necessity of recasting the scheme of secondary education, and the danger of all measures . . . which tend by a set of unjustified equivalents to cause secondary education in the classics to lose the preeminent place that it ought to occupy in the training of young people who are designed to recruit our great schools."

NOTE: As was pointed out by the Minister of Public Instruction in his reply to this communication, and by M. Lanson in the *Revue Bleue*, (December 24, 1911), the defects in the mental equipment of young engineers, of which the *Comité des Forges* complained, could not be entirely attributed to the reform scheme of 1902, since this had not been in force long enough to permit accurate estimate of its effects. Nevertheless, the letter is a significant expression of what, in the opinion of the foremost technical men of France, study of the classics is better able than rival disciplines to contribute to practical education.

Translated from the *Revue Universitaire*, 1911, I, p. 62.

## OPINIONS OF BERTHELOT AND HENRI POINCARÉ

Berthelot, the illustrious chemist, was asked how he had been led to his discoveries: "By learning Greek," he replied. . . . It was from the Greeks that Henri Poincaré, the mathematical genius, gained the secret of his daring achievements in mathematics; . . . one of his last works was an eloquent plea for the humanities.

Translated from an address delivered by Paul Monceaux, retiring president of the Association for the Encouragement of Greek Studies, to the general assembly of the members of the Association, May 8, 1913; see *Revue des Etudes Grecques*, 26 (1913), p. LXIV.

# IV

# STATISTICS

# STATISTICS

In connection with the Princeton Conference on Classical Studies in Liberal Education a pamphlet was issued, intended at first merely for distribution among those in attendance upon the Conference itself, in which brief answers, in statistical form, were given to two questions which are frequently raised in current discussions of the educational issues involved. These questions are: Is Latin dying out in the schools? and How do classical students in school and college succeed in meeting the various intellectual tests in which they are brought into competition with the non-classical students? This pamphlet has aroused such widespread interest throughout the country that it has been thought worth while to reproduce the statistics with large additions as the final chapter of the present volume. The material, which was presented in the pamphlet in summary form without unnecessary details or discussion, has been somewhat more fully presented and more material has been added; the data from which the deductions were drawn have been definitely indicated and the statistics have been made more complete wherever practicable.

## I. Enrollment of Classical Students in Secondary Schools

The assaults which have recently been made upon the study of Latin have given the impression in some quarters that Latin is upon its last legs in the secondary

schools of the country. Indeed, one of the most prominent advocates of the displacement in the school curriculum of such "traditional" subjects as algebra, Latin and history by "modern" and "practical" subjects declared not long ago in a public address that he was unjustly accused of "trying to kill Latin"; that, on the contrary, it "was dead already" and he was merely helping to bury it.

The status of Latin in the secondary schools of the country is a matter not of opinion but of fact; and in the interpretation of the facts, which are accessible to all in the Reports of the United States Commissioner of Education, the weight of public opinion, which in the end determines which subjects shall be pursued in the high schools and which shall be preferred because of their real or imagined value to the youth of the land, is the factor chiefly to be recognized. Innovations in the school curriculum are frequently made, not so much in response to popular demand as in consequence of the agitation of professional educators, whereas the persistence of the older studies in spite of the increasing competition of a large variety of new subjects which are generally advertised and zealously promoted as making for practical success in life must be taken as evidence of a firmly rooted conviction on the part of the masses.

The following table, which gives the enrollment of pupils in the secondary schools of the United States from 1890 to 1915 at five-year periods, reproduces the statistics of the Report of the United States Commissioner of Education for 1916, Vol. II, page 489:

| | 1890 | 1895 | 1900 | 1905 | 1910 | 1915 |
|---|---|---|---|---|---|---|
| ollment... | 297,894 | 468,446 | 719,241 | 786,909 | 817,653 | 1,291,197 |
| literature.. | ..... | ..... | 259,493 | 378,819 | 466,477 | 724,018 |
| ..... | ..... | 146,672 | 237,502 | 372,266 | 462,711 | 718,075 |
| ..... | 82,909 | 162,336 | 238,134 | 318,775 | 455,200 | 664,478 |
| ..... | 127,397 | 245,465 | 347,013 | 444,092 | 465,375 | 636,016 |
| ..... | 100,144 | 205,006 | 314,856 | 391,067 | 405,502 | **503,985** |
| ic..... | ..... | ..... | ..... | ..... | ..... | 415,655 |
| ..... | 59,781 | 114,813 | 168,518 | 219,083 | 252,404 | 346,064 |
| ..... | 34,208 | 58,921 | 94,873 | 160,066 | 192,933 | 312,358 |
| ..... | ..... | ..... | ..... | ..... | ..... | 297,498 |
| eography. | ..... | 105,124 | 144,135 | 165,631 | 156,500 | 189,229 |
| ..... | 63,644 | 103,768 | 118,936 | 123,282 | 120,910 | 184,426 |
| Economy.. | ..... | ..... | ..... | ..... | 33,866 | 163,826 |
| aining.... | ..... | ..... | ..... | ..... | ..... | 137,318 |
| ..... | 28,032 | 45,746 | 65,684 | 89,777 | 95,671 | 136,131 |
| ..... | ..... | 131,304 | 169,844 | 171,850 | 128,826 | 128,343 |
| ..... | ..... | ..... | ..... | ..... | 133,667 | 118,193 |
| rnment... | ..... | ..... | 132,863 | 140,459 | 130,740 | 113,716 |
| ..... | 28,665 | 43,607 | 50,431 | 55,414 | 58,290 | 98,516 |
| ..... | ..... | ..... | ..... | ..... | ..... | 93,022 |
| ..... | ..... | ..... | ..... | ..... | 37,203 | 89,338 |
| iology.... | ..... | ..... | ..... | ..... | ..... | 85,339 |
| g ..... | ..... | ..... | ..... | ..... | ..... | 42,431 |
| ..... | ..... | ..... | ..... | ..... | 64,428 | 41,893 |
| ..... | ..... | ..... | ..... | ..... | 5,283 | 33,148 |
| ry ..... | ..... | 15,243 | 15,268 | 17,256 | 17,864 | 22,478 |
| ..... | ..... | 15,677 | 20,126 | 14,540 | 11,004 | 18,521 |
| ..... | ..... | ..... | ..... | ..... | ..... | 14,324 |
| ..... | 12,869 | 22,159 | 24,869 | 17,158 | 10,739 | 10,671 |
| ..... | ..... | 25,866 | 25,300 | 20,596 | 11,251 | 7,590 |
| ..... | ..... | 24,690 | 21,393 | 13,507 | 7,216 | 5,767 |

gards the present status of Latin the last column able shows that:

ext after English, history and algebra, which ired at some period of practically all pupils in ools and academies, Latin now has the largest nt of any subject;

2—Latin is the one language, except English, which is most generally studied in our high schools and academies;

3—Latin is taken by a larger number of pupils than French, German and Spanish combined, and by eighty per cent more than physics and chemistry combined;

4—Turning to the other subjects, which are not usually required for entrance to college, we find that Latin is taken by only twelve and one-half per cent fewer students than physical geography, physiology, botany, general biology, zoology and geology combined; and by twelve and one-half per cent more than domestic economy, manual training, agriculture, bookkeeping and "industrial"—the "practical" subjects—combined.

The general availability of Latin, therefore, for the young men and women in the secondary schools who care to study it is not open to question. Every public high school and academy in the country, practically without exception, offers instruction in it; and according to the general testimony of the school examiners who are sent out by the large universities to pass upon the quality of instruction given in the several subjects accepted for admission to college, Latin and mathematics are the two subjects in which the instruction is most likely to be found satisfactory. The country has for generations been well supplied by the colleges and universities with capable teachers of Latin.

The growth of Latin in the secondary schools is also shown in the following table of percentages (Report of Commissioner, p. 489). The percentages give the relation of the enrollment in each subject to the total enrollment:

| | 1890 Per cent of total | 1895 Per cent of total | 1900 Per cent of total | 1905 Per cent of total | 1910 Per cent of total | 1915 Per cent of total |
|---|---|---|---|---|---|---|
| English literature.. | ..... | ..... | 41.19 | 46.14 | 57.25 | 56.97 |
| Rhetoric ..... | ..... | 31.31 | 37.70 | 47.20 | 56.20 | 55.61 |
| History ..... | 27.83 | 34.65 | 37.20 | 40.80 | 55.07 | 51.46 |
| Algebra ..... | 42.77 | 52.40 | 55.05 | 56.42 | 56.20 | 49.26 |
| Latin ..... | 33.62 | 43.76 | 49.97 | 49.69 | 49.26 | 39.05 |
| Vocal music ..... | ..... | ..... | ..... | ..... | ..... | 22.19 |
| Geometry ..... | 20.07 | 24.51 | 26.75 | 27.24 | 20.97 | 26.20 |
| German ..... | 11.46 | 12.58 | 15.06 | 20.24 | 22.60 | 24.19 |
| Drawing ..... | ..... | ..... | ..... | ..... | ..... | 22.04 |
| Physical geography ..... | | 22.14 | 22.20 | 21.05 | 19.14 | 14.06 |
| Physics ..... | 21.26 | 22.15 | 18.20 | 15.06 | 14.70 | 14.06 |
| Domestic economy. | ..... | ..... | ..... | ..... | 4.14 | 12.60 |
| Manual training... | ..... | ..... | ..... | ..... | ..... | 10.05 |
| French ..... | 9.41 | 9.77 | 10.45 | 11.40 | 11.70 | 10.54 |
| Physiology ..... | ..... | 26.03 | 26.26 | 21.24 | 15.76 | 9.26 |
| Botany ..... | ..... | ..... | ..... | ..... | 16.24 | 9.15 |
| Civil government.. | ..... | ..... | 21.09 | 17.25 | 15.20 | 8.81 |
| Chemistry ..... | 9.62 | 9.31 | 8.00 | 7.04 | 7.13 | 7.62 |
| Civics ..... | ..... | ..... | ..... | ..... | ..... | 7.20 |
| Agriculture ..... | ..... | ..... | ..... | ..... | 4.54 | 6.20 |
| General biology.... | ..... | ..... | ..... | ..... | ..... | 6.01 |
| Bookkeeping ..... | ..... | ..... | ..... | ..... | ..... | 3.20 |
| Zoology ..... | ..... | ..... | ..... | ..... | 7.26 | 3.24 |
| Spanish ..... | ..... | ..... | ..... | ..... | .65 | 2.72 |
| Trigonometry ..... | ..... | 3.25 | 2.42 | 2.19 | 2.18 | 1.74 |
| Psychology ..... | ..... | 3.35 | 3.19 | 1.24 | 1.25 | 1.18 |
| Industrial ..... | ..... | ..... | ..... | ..... | ..... | 1.12 |
| Greek ..... | 4.32 | 4.73 | 3.25 | 2.10 | 1.31 | .93 |
| Geology ..... | ..... | 5.52 | 4.02 | 2.02 | 1.20 | .20 |
| Astronomy ..... | ..... | 5.27 | 3.43 | 1.71 | .20 | .45 |

It will be noted that between the years 1890 and 1905 the Latin enrollment increased at an astonishing rate, not only absolutely but relatively, the percentage of all secondary pupils studying it rising almost steadily from 33.62 in 1890 to 49.69 in 1905, or a gain of 16.07 per cent. No other subject made an equal gain in this period, algebra gaining 13.66 per cent, history 12.67,

German 8.86, geometry 7.77 and French 1.99, whereas physics lost 5.70 per cent, chemistry 2.58 and Greek 2.14. The period 1905-1915 on the other hand was characterized by the introduction of new subjects into the curriculum. In these the enrollment was necessarily at the expense of the older subjects. Rhetoric and English literature, which had first appeared in the Reports in 1895 and 1900 respectively, claimed in 1915 55.61 and 56.07 per cent of the total enrollment, and the subjects introduced between 1905 and 1915, taken as a whole, succeeded by 1915 in controlling almost one-fourth of the total amount of attendance in the secondary school studies. A glance at the table of percentages will show the entire list. They are vocal music, drawing, domestic economy, manual training, botany, civics, agriculture, general biology, bookkeeping, zoology, Spanish and "industrial"—the last a term both vague and obvious. Only three of the older subjects gained in this period, namely history (10.96 per cent), German (3.85) and chemistry (0.59), all the rest losing: Latin 10.66 per cent, algebra 7.17, physics 1.88, Greek 1.85, geometry 1.04 and French 0.86. Even so, Latin retains the first place among all the subjects not required of practically all students in secondary schools.

The high enrollment maintained by such subjects as Latin and mathematics, probably the most difficult in the high school curriculum, in the face of the increasing competition of new subjects, many of which are of a vocational character, gives evidence of a widespread and powerful belief in their efficacy in modern education. Theirs is clearly the strength, not of tradition merely, but of proved worth. Tradition, for example, has unfortunately not protected Greek, whose practical uses

and relation to western civilization are not so immediately obvious to the ordinary man as these values of Latin are.

In this general connection, moreover, an interesting investigation made in 1915 by Dr. Harris Hancock, professor of mathematics in the University of Cincinnati, may be cited as showing how enlightened opinion stands, as regards the desirability not only of keeping classics and mathematics in the high school curriculum, but of requiring their study of all high school pupils.

Professor Hancock addressed a letter of inquiry to representative business men, clergymen, lawyers, physicians and other leading men in Cincinnati. Of the replies received seven favored a high school course of study with mathematics and classics optional, thirty-four favored a course with mathematics required and classics optional, none favored a course with classics required and mathematics optional, while fifty-three (a clear majority) favored a course in which both classics and mathematics are required.

He addressed the same inquiry to a similar list of representative men in Boston, New York, Philadelphia, Baltimore, Washington, Richmond, Atlanta, Cleveland, Chicago, St. Louis, San Francisco and other cities. Of the replies received five favored a high school course of study with mathematics and classics optional, twenty-five favored a course with mathematics required and classics optional, two favored a course with classics required and mathematics optional, while fifty-six (a large majority) favored a course in which both mathematics and classics are required.

The combined result is as follows:

| Four Plans: Classics and Mathematics | Cincinnati | Other Cities | Totals |
|---|---|---|---|
| 1. Both optional | 7 | 5 | 12 |
| 2. Classics optional | 34 | 25 | 59 |
| 3. Mathematics optional | 0 | 2 | 2 |
| 4. Both required | 53 | 56 | 109 |
| | 94 | 88 | 182 |

The general agreement in the ratios of opinion on the four plans in Cincinnati and the other cities is striking and is indicative of a strong trend of opinion among influential practical men in favor of requiring both classics and mathematics in our secondary education.

Professor Hancock's article is published in *School and Society,* June 19, 1915.

## II. Record of Classical Students in College Entrance Examinations

Dr. Abraham Flexner, in his pamphlet entitled "A Modern School" (1916), makes a categorical arraignment of both the teaching of Latin and the study of Latin itself. In order to prove that classical teachers fail to teach Latin well, he cites some figures selected from the Report for 1915 of the College Entrance Examination Board. Regarding the statistical methods employed by Dr. Flexner in the attempt to make out his case, reference will be made later on to refutations published by Dr. Charles H. Forbes of Phillips Andover Academy and Dr. W. V. McDuffee, President of the Massachusetts State Teachers' Association; and a statement will be quoted of a professor of economics and statistics, Dr. Walter M. Adriance of Princeton University. But first there should be cited a positive state-

ment of extraordinary educational value and of unimpeachable authority.

The tests of the College Entrance Examination Board do indeed afford a basis, strangely overlooked by Dr. Flexner, for the comparison of the classical[1] and the non-classical candidates who take the Board's papers. Whether or not the results of such a comparison warrant deductions as to the quality of the instruction received by the two sets of candidates need not concern us here, since the classically trained candidates make the better showing. It clearly appears from a special investigation made for the Princeton Conference by the Secretary of the Board that the training which the classical students have received, whether because of the subject, the teaching, the inherent ability of the candidates who elect the classics in the schools, or all three combined, has somehow enabled them to sustain the examination tests of the Board with notably greater success than those who lack this particular training.

The Secretary of the College Entrance Examination Board has tabulated the comparative records of the classical and the non-classical students who took the examinations of the Board in the three years 1914, 1915 and 1916. There were 21,103 candidates, and they took 52,145 examinations. The following facts, expressed in percentages, are based upon the results of the examinations in all subjects except Greek and Latin:

[1] The term "classical" as here used means candidates who offered Latin or Greek or both, "non-classical" those who offered neither Latin nor Greek.

### A. Combined Ratings in All the Non-Classical Subjects

Candidates who obtained a rating of 90 to 100
2.95 per cent of all the classical candidates
2.05 per cent of all the non-classical candidates
The classical students show a superiority of 44 per cent.

Candidates who obtained a rating of 75 to 89
17.31 per cent of all the classical candidates
12.31 per cent of all the non-classical candidates
The classical students show a superiority of about 40 per cent.

Candidates who obtained a rating of 60 to 100
51.96 per cent of all the classical candidates
40.97 per cent of all the non-classical candidates
The classical students show a superiority of about 27 per cent.

### B. Ratings in the Individual Non-classical Subjects

In all but one of these subjects taken by any large number of candidates, the classical students show a marked superiority over the non-classical. This is especially true in the case of the high ratings, the proportion of classical students attaining them being noticeably larger. The single exception is physics, in which about one per cent more of the non-classical candidates than of the classical candidates passed the examinations. But the classical group excelled the others in the higher grades even in physics, the rating of 90 to 100 having been obtained by 7.64 per cent of the classical candidates and by 6.79 per cent of the non-classical.

In English the classical candidates had an advantage,

ranging from 285 per cent in the highest rating (90 to 100) to 58 per cent in the passing grade (i.e., 58 per cent of the classical candidates passed as against 88.5 per cent of the non-classical).

In history the classical candidates surpassed the non-classical in all three ratings, their superiority being 107.5 per cent in the highest rating, 84.4 per cent in the next, and 29.4 per cent in the record of those who passed.

In mathematics the classical candidates were more successful in all ratings, especially in the rating 90 to 100, where they showed a superiority of 59 per cent (4.47 per cent, as compared with 2.81).

In physics, as already noted, the classical students were slightly behind the non-classical, the inferiority in the passing grade being 2.5 per cent (52.73 per cent as compared with 54.06). In chemistry, on the other hand, their superiority was 12 per cent (51.94 per cent as compared with 46.37) in the case of those who passed the examinations.

In French and German the classical candidates were decidedly ahead in all grades for both subjects, their superiority in the highest grade being 89 per cent for French and 125 per cent for German.

The number of candidates in the other subjects is too small to yield percentages of any significance. For example, civil government was taken by 65 candidates, zoology by 58, drawing by 224, music by 36, biology by 285, botany by 111, Spanish by 146 and geography by 160. But it may be noted that the non-classical students excelled somewhat in civil government, zoology and drawing, while the classical candidates who obtained the rating of 90 to 100 in drawing were more numerous; and that in music, biology, botany, Spanish and geography the classical candidates again excelled.

In a pamphlet entitled "The Sham Argument against Latin" (1917) Professor Charles H. Forbes, of Phillips Andover Academy, after quoting Dr. Abraham Flexner's paragraph (introduced below, p. 375, in the letter of Professor Adriance) which is designed to prove the failure of the current teaching of Latin, makes the following rejoinder:

"In 1915 the Board set 12 different examinations in Latin. Amongst these was Latin C, an examination in Cicero given in that year for the last time. Only *64* candidates, of whom 84 were recommended by their teachers, tried the examination, because it was obsolete. 76.6 per cent of these 64 did fail to get 60 per cent. The main examination, however, as nobody could fail to know, with the report before his eyes, was Latin 4, Cicero and sight, a more severe test of Latin knowledge. This examination was taken by 1,210 candidates, of whom 53.1 per cent failed to get 60 per cent. This was a bad showing, of course, but it is 22.5 per cent better than the trivial examination of 64 students which he [Dr. Flexner] chose as representative. . . .

"In the figures for Virgil he has exercised the same skill in the manipulation of statistics, for he chose Latin D, another course then given for the last time, and which only *64* students took. 75 per cent of these did fail to get a grade of 60 per cent. But the real test, Latin 5, Virgil and sight, was taken by 776 candidates, of whom 38.9 per cent failed to get a grade of 60 per cent. This is 36.1 per cent better than the Virgil which he chose for illuminating purposes. Of these two craftily selected examinations out of a total of 12 in Latin, he proceeded to generalize upon the subject of Latin as an egregious failure.

"I submit that any fair judgment of the statistics of Latin must premise the inclusion of its 12 parts in those statistics. Now the general average of the 5979 Latin examinations reveals the fact that just 41 per cent of the candidates failed to secure a grade of 60 per cent. This is not 76.6 per cent by a long shot. The general average of *recommended* students was 81.6 per cent. These appear to be formidable losses, and are in part properly chargeable to poor teaching, but when we compare this 41 per cent failure with the results in other subjects of the Board examinations, we discover that, in a total list of 16 subjects, Latin stands seventh in excellence. Latin had 5979 papers. Three of those subjects which stood higher than Latin were zoology with just 15 papers, botany with 17 and biology with 16. I submit that these numbers are too trivial to allow of any comparative judgment with a subject involving almost 6,000 examinations. Eliminating them, we find that Latin stands fourth in the list of considerable subjects for which a reasonable basis of judgment is at hand. But on any basis, if Latin is despicable, what must we say of German, chemistry, drawing, music, mathematics, English, Spanish, geography and history, all of which are below it? Latin stands fifth on the entire list of recommended students. . . .

"Dr. Flexner shrewdly refrains from mentioning Greek; it is so hopelessly dead, as people think. But here again let us examine the facts. There were 788 papers in Greek subjects. We may get an illuminating view of the popularity of some subjects by observing that the *total* number of candidates in biology, botany, geology, zoology, drawing and music all together was 168, or 2 less than the number that took Xenophon

alone in Greek! Poor old Greek need not yet hide its comely form in a winding sheet. In general average Greek, with 738 examinations, stood second on the list of 16 subjects with a record of 28.9 per cent of failures to secure a grade of 60 per cent. Zoology, with only 15 candidates, is hardly entitled to its position as first. In the total list of 51 examinations given by the Board it is instructive to notice that Greek G is first, Greek CH is second, Greek A2 is third and Greek C is fourth."

At the end of his pamphlet Dr. Forbes gives tables, prepared by himself, showing the results of the College Entrance Board examinations in 1915 and 1916, in which the subjects of the several papers are arranged in the order of the success of the candidate in dealing with them. The last two tables give the combined results in all the papers set in each department of study, i.e. all the Latin papers (12 in 1915, 8 in 1916) are combined under the title "Latin," etc. These tables present so clearly the actual facts, and make Dr. Flexner's methods in deducing his sweeping conclusions so patent, that they are here reproduced in full:

RESULTS OF THE C. E. E. B. EXAMINATIONS

Prepared by C. H. Forbes

1915—All Candidates

Percentage of failures to secure 60 per cent, in order of superiority

| | Candidates | Per cent of failures |
|---|---|---|
| 1 Greek G, Sight Prose | 109 | 11.1 |
| 2 Greek CH, Iliad and Sight | 55 | 14.5 |
| 3 Greek A2, El. Comp. | 168 | 17 |
| 4 Greek C, Iliad I-III | 45 | 17.8 |
| 5 Zoology | 15 | 20 |

| | | |
|---|---|---|
| I, Grammar | 1098 | 31.2 |
| B, Xenophon | 170 | 31.2 |
| A1, Grammar | 143 | 32.2 |
| 2, El. Comp. | 779 | 32.7 |
| E., Trig. | 46 | 32.7 |
| B, Harmony | 6 | 33.4 |
| 3, Second Year | 971 | 34.1 |
| h B | 839 | 34.5 |
| y | 17 | 35.3 |
| in | 1307 | 37 |
| y | 16 | 37.5 |
| 5, Virgil and Sight | 776 | 38.9 |
| h A | 1441 | 40.1 |
| s | 748 | 40.7 |
| C, Pl. Geometry | 1936 | 42.4 |
| F, Comp. | 51 | 43.1 |
| h B, Study and Prac. | 696 | 44.9 |
| F, Pl. Trig. | 411 | 45.5 |
| 6, Adv. Comp. | 730 | 46.2 |
| P, Adv. Sight Prose | 39 | 46.3 |
| M, El. Sight Prose | 15 | 46.7 |
| istry | 550 | 47.5 |
| ng | 71 | 47.9 |
| n B | 623 | 49 |
| B, Caesar | 212 | 49.6 |
| n BC | 82 | 51.2 |
| h 1, Grammar | 1734 | 52.5 |
| 4, Cicero and Sight | 1210 | 53.1 |
| B, Adv. Alg. | 241 | 54 |
| A1, to Quadratics | 805 | 55.4 |
| D, Solid Geom. | 551 | 56.3 |
| A, El. Alg. | 1380 | 56.4 |
| D, Pianoforte, etc. | 7 | 57.1 |
| h | 30 | 60 |
| A, Appreciation | 5 | 60 |
| y B, Med. & Mod. | 58 | 63.8 |
| phy | 31 | 64.5 |
| y C, English | 288 | 65.3 |
| y A, Ancient | 930 | 66.7 |
| Q, Sight Poetry | 21 | 66.7 |
| A2, Quad. and Beyond | 674 | 69.7 |
| n BC | 86 | 70.9 |

2—Latin is the one language, except English, which is most generally studied in our high schools and academies;

3—Latin is taken by a larger number of pupils than French, German and Spanish combined, and by eighty per cent more than physics and chemistry combined;

4—Turning to the other subjects, which are not usually required for entrance to college, we find that Latin is taken by only twelve and one-half per cent fewer students than physical geography, physiology, botany, general biology, zoology and geology combined; and by twelve and one-half per cent more than domestic economy, manual training, agriculture, bookkeeping and "industrial"—the "practical" subjects—combined.

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| | 1890 Per cent of total | 1895 Per cent of total | 1900 Per cent of total | 1905 Per cent of total | 1910 Per cent of total | 1915 Per cent of total |
|---|---|---|---|---|---|---|
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| Rhetoric | ..... | 31.31 | 37.70 | 47.20 | 56.80 | 55.61 |
| History | 27.88 | 34.65 | 37.20 | 40.50 | 55.07 | 51.46 |
| Algebra | 12.77 | 32.40 | 35.05 | 36.43 | 36.80 | 40.96 |
| Latin | 33.62 | 43.76 | 49.97 | 49.69 | 49.80 | 39.03 |
| Vocal music | ..... | ..... | ..... | ..... | ..... | 38.19 |
| Geometry | 20.07 | 24.51 | 26.75 | 27.24 | 30.97 | 26.99 |
| German | 11.46 | 12.56 | 15.06 | 20.24 | 23.60 | 24.19 |
| Drawing | ..... | ..... | ..... | ..... | ..... | 23.04 |
| Physical geography | ..... | 22.14 | 22.98 | 21.06 | 19.14 | 14.06 |
| Physics | 21.26 | 26.15 | 15.98 | 15.06 | 14.79 | 14.98 |
| Domestic economy | ..... | ..... | ..... | ..... | 4.14 | 12.89 |
| Manual training | ..... | ..... | ..... | ..... | ..... | 10.05 |
| French | 9.41 | 9.77 | 10.46 | 11.40 | 11.70 | 10.54 |
| Physiology | ..... | 26.03 | 26.96 | 21.24 | 15.76 | 9.94 |
| Botany | ..... | ..... | ..... | ..... | 16.24 | 9.15 |
| Civil government | ..... | ..... | 21.09 | 17.85 | 15.99 | 8.81 |
| Chemistry | 9.69 | 9.31 | 8.00 | 7.04 | 7.13 | 7.63 |
| Civics | ..... | ..... | ..... | ..... | ..... | 7.20 |
| Agriculture | ..... | ..... | ..... | ..... | 4.55 | 6.99 |
| General biology | ..... | ..... | ..... | ..... | ..... | 6.61 |
| Bookkeeping | ..... | ..... | ..... | ..... | ..... | 3.99 |
| Zoology | ..... | ..... | ..... | ..... | 7.93 | 3.94 |
| Spanish | ..... | ..... | ..... | ..... | .85 | 2.79 |
| Trigonometry | ..... | 3.25 | 2.49 | 2.19 | 2.18 | 1.74 |
| Psychology | ..... | 3.35 | 3.19 | 1.84 | 1.35 | 1.08 |
| Industrial | ..... | ..... | ..... | ..... | ..... | 1.19 |
| Greek | 4.32 | 4.73 | 3.95 | 2.19 | 1.31 | .93 |
| Geology | ..... | 5.89 | 4.09 | 2.69 | 1.20 | .89 |
| Astronomy | ..... | 5.97 | 3.43 | 1.71 | .99 | .45 |

It will be noted that between the years 1890 and 1905 the Latin enrollment increased at an astonishing rate, not only absolutely but relatively, the percentage of all secondary pupils studying it rising almost steadily from 33.62 in 1890 to 49.69 in 1905, or a gain of 16.07 per cent. No other subject made an equal gain in this period, algebra gaining 18.66 per cent, history 12.67,

German 8.86, geometry 7.77 and French 1.99, whereas physics lost 5.70 per cent, chemistry 2.58 and Greek 2.14. The period 1905-1915 on the other hand was characterized by the introduction of new subjects into the curriculum. In these the enrollment was necessarily at the expense of the older subjects. Rhetoric and English literature, which had first appeared in the Reports in 1895 and 1900 respectively, claimed in 1915 55.61 and 56.07 per cent of the total enrollment, and the subjects introduced between 1905 and 1915, taken as a whole, succeeded by 1915 in controlling almost one-fourth of the total amount of attendance in the secondary school studies. A glance at the table of percentages will show the entire list. They are vocal music, drawing, domestic economy, manual training, botany, civics, agriculture, general biology, bookkeeping, zoology, Spanish and "industrial"—the last a term both vague and obvious. Only three of the older subjects gained in this period, namely history (10.96 per cent), German (8.85) and chemistry (0.59), all the rest losing: Latin 10.66 per cent, algebra 7.17, physics 1.88, Greek 1.85, geometry 1.04 and French 0.86. Even so, Latin retains the first place among all the subjects not required of practically all students in secondary schools.

The high enrollment maintained by such subjects as Latin and mathematics, probably the most difficult in the high school curriculum, in the face of the increasing competition of new subjects, many of which are of a vocational character, gives evidence of a widespread and powerful belief in their efficacy in modern education. Theirs is clearly the strength, not of tradition merely, but of proved worth. Tradition, for example, has unfortunately not protected Greek, whose practical uses

and relation to western civilization are not so immediately obvious to the ordinary man as these values of Latin are.

In this general connection, moreover, an interesting investigation made in 1915 by Dr. Harris Hancock, professor of mathematics in the University of Cincinnati, may be cited as showing how enlightened opinion stands, as regards the desirability not only of keeping classics and mathematics in the high school curriculum, but of requiring their study of all high school pupils.

Professor Hancock addressed a letter of inquiry to representative business men, clergymen, lawyers, physicians and other leading men in Cincinnati. Of the replies received seven favored a high school course of study with mathematics and classics optional, thirty-four favored a course with mathematics required and classics optional, none favored a course with classics required and mathematics optional, while fifty-three (a clear majority) favored a course in which both classics and mathematics are required.

He addressed the same inquiry to a similar list of representative men in Boston, New York, Philadelphia, Baltimore, Washington, Richmond, Atlanta, Cleveland, Chicago, St. Louis, San Francisco and other cities. Of the replies received five favored a high school course of study with mathematics and classics optional, twenty-five favored a course with mathematics required and classics optional, two favored a course with classics required and mathematics optional, while fifty-six (a large majority) favored a course in which both mathematics and classics are required.

The combined result is as follows:

| Four Plans: Classics and Mathematics | Cincinnati | Other Cities | Totals |
|---|---|---|---|
| 1. Both optional | 7 | 5 | 12 |
| 2. Classics optional | 34 | 25 | 59 |
| 3. Mathematics optional | 0 | 2 | 2 |
| 4. Both required | 53 | 56 | 109 |
| | 94 | 88 | 182 |

The general agreement in the ratios of opinion on the four plans in Cincinnati and the other cities is striking and is indicative of a strong trend of opinion among influential practical men in favor of requiring both classics and mathematics in our secondary education.

Professor Hancock's article is published in *School and Society,* June 19, 1915.

## II. Record of Classical Students in College Entrance Examinations

Dr. Abraham Flexner, in his pamphlet entitled "A Modern School" (1916), makes a categorical arraignment of both the teaching of Latin and the study of Latin itself. In order to prove that classical teachers fail to teach Latin well, he cites some figures selected from the Report for 1915 of the College Entrance Examination Board. Regarding the statistical methods employed by Dr. Flexner in the attempt to make out his case, reference will be made later on to refutations published by Dr. Charles H. Forbes of Phillips Andover Academy and Dr. W. V. McDuffee, President of the Massachusetts State Teachers' Association; and a statement will be quoted of a professor of economics and statistics, Dr. Walter M. Adriance of Princeton University. But first there should be cited a positive state-

ment of extraordinary educational value and of unimpeachable authority.

The tests of the College Entrance Examination Board do indeed afford a basis, strangely overlooked by Dr. Flexner, for the comparison of the classical[1] and the non-classical candidates who take the Board's papers. Whether or not the results of such a comparison warrant deductions as to the quality of the instruction received by the two sets of candidates need not concern us here, since the classically trained candidates make the better showing. It clearly appears from a special investigation made for the Princeton Conference by the Secretary of the Board that the training which the classical students have received, whether because of the subject, the teaching, the inherent ability of the candidates who elect the classics in the schools, or all three combined, has somehow enabled them to sustain the examination tests of the Board with notably greater success than those who lack this particular training.

The Secretary of the College Entrance Examination Board has tabulated the comparative records of the classical and the non-classical students who took the examinations of the Board in the three years 1914, 1915 and 1916. There were 21,108 candidates, and they took 52,145 examinations. The following facts, expressed in percentages, are based upon the results of the examinations in all subjects except Greek and Latin:

[1] The term "classical" as here used means candidates who offered Latin or Greek or both, "non-classical" those who offered neither Latin nor Greek.

### A. Combined Ratings in All the Non-Classical Subjects

Candidates who obtained a rating of 90 to 100
2.95 per cent of all the classical candidates
2.05 per cent of all the non-classical candidates
The classical students show a superiority of 44 per cent.

Candidates who obtained a rating of 75 to 89
17.81 per cent of all the classical candidates
12.81 per cent of all the non-classical candidates
The classical students show a superiority of about 40 per cent.

Candidates who obtained a rating of 60 to 100
51.96 per cent of all the classical candidates
40.97 per cent of all the non-classical candidates
The classical students show a superiority of about 27 per cent.

### B. Ratings in the Individual Non-classical Subjects

In all but one of these subjects taken by any large number of candidates, the classical students show a marked superiority over the non-classical. This is especially true in the case of the high ratings, the proportion of classical students attaining them being noticeably larger. The single exception is physics, in which about one per cent more of the non-classical candidates than of the classical candidates passed the examinations. But the classical group excelled the others in the higher grades even in physics, the rating of 90 to 100 having been obtained by 7.64 per cent of the classical candidates and by 6.79 per cent of the non-classical.

In English the classical candidates had an advantage,

ranging from 285 per cent in the highest rating (90 to 100) to 58 per cent in the passing grade (i.e., 58 per cent of the classical candidates passed as against 88.5 per cent of the non-classical).

In history the classical candidates surpassed the non-classical in all three ratings, their superiority being 107.5 per cent in the highest rating, 84.4 per cent in the next, and 29.4 per cent in the record of those who passed.

In mathematics the classical candidates were more successful in all ratings, especially in the rating 90 to 100, where they showed a superiority of 59 per cent (4.47 per cent, as compared with 2.81).

In physics, as already noted, the classical students were slightly behind the non-classical, the inferiority in the passing grade being 2.5 per cent (52.73 per cent as compared with 54.06). In chemistry, on the other hand, their superiority was 12 per cent (51.94 per cent as compared with 46.37) in the case of those who passed the examinations.

In French and German the classical candidates were decidedly ahead in all grades for both subjects, their superiority in the highest grade being 89 per cent for French and 125 per cent for German.

The number of candidates in the other subjects is too small to yield percentages of any significance. For example, civil government was taken by 65 candidates, zoology by 58, drawing by 224, music by 36, biology by 285, botany by 111, Spanish by 146 and geography by 160. But it may be noted that the non-classical students excelled somewhat in civil government, zoology and drawing, while the classical candidates who obtained the rating of 90 to 100 in drawing were more numerous; and that in music, biology, botany, Spanish and geography the classical candidates again excelled.

In a pamphlet entitled "The Sham Argument against Latin" (1917) Professor Charles H. Forbes, of Phillips Andover Academy, after quoting Dr. Abraham Flexner's paragraph (introduced below, p. 375, in the letter of Professor Adriance) which is designed to prove the failure of the current teaching of Latin, makes the following rejoinder:

"In 1915 the Board set 12 different examinations in Latin. Amongst these was Latin C, an examination in Cicero given in that year for the last time. Only *64* candidates, of whom 84 were recommended by their teachers, tried the examination, because it was obsolete. 76.6 per cent of these 64 did fail to get 60 per cent. The main examination, however, as nobody could fail to know, with the report before his eyes, was Latin 4, Cicero and sight, a more severe test of Latin knowledge. This examination was taken by 1,210 candidates, of whom 58.1 per cent failed to get 60 per cent. This was a bad showing, of course, but it is 22.5 per cent better than the trivial examination of 64 students which he [Dr. Flexner] chose as representative. . . .

"In the figures for Virgil he has exercised the same skill in the manipulation of statistics, for he chose Latin D, another course then given for the last time, and which only *64* students took. 75 per cent of these did fail to get a grade of 60 per cent. But the real test, Latin 5, Virgil and sight, was taken by 776 candidates, of whom 88.9 per cent failed to get a grade of 60 per cent. This is 86.1 per cent better than the Virgil which he chose for illuminating purposes. Of these two craftily selected examinations out of a total of 12 in Latin, he proceeded to generalize upon the subject of Latin as an egregious failure.

"I submit that any fair judgment of the statistics of Latin must premise the inclusion of its 12 parts in those statistics. Now the general average of the 5979 Latin examinations reveals the fact that just 41 per cent of the candidates failed to secure a grade of 60 per cent. This is not 76.6 per cent by a long shot. The general average of *recommended* students was 81.6 per cent. These appear to be formidable losses, and are in part properly chargeable to poor teaching, but when we compare this 41 per cent failure with the results in other subjects of the Board examinations, we discover that, in a total list of 16 subjects, Latin stands seventh in excellence. Latin had 5979 papers. Three of those subjects which stood higher than Latin were zoology with just 15 papers, botany with 17 and biology with 16. I submit that these numbers are too trivial to allow of any comparative judgment with a subject involving almost 6,000 examinations. Eliminating them, we find that Latin stands fourth in the list of considerable subjects for which a reasonable basis of judgment is at hand. But on any basis, if Latin is despicable, what must we say of German, chemistry, drawing, music, mathematics, English, Spanish, geography and history, all of which are below it? Latin stands fifth on the entire list of recommended students. . . .

"Dr. Flexner shrewdly refrains from mentioning Greek; it is so hopelessly dead, as people think. But here again let us examine the facts. There were 788 papers in Greek subjects. We may get an illuminating view of the popularity of some subjects by observing that the *total* number of candidates in biology, botany, geology, zoology, drawing and music all together was 168, or 2 less than the number that took Xenophon

alone in Greek! Poor old Greek nced not yet hide its comely form in a winding sheet. In general average Greek, with 738 examinations, stood second on the list of 16 subjects with a record of 28.9 per cent of failures to secure a grade of 60 per cent. Zoology, with only 15 candidates, is hardly entitled to its position as first. In the total list of 51 examinations given by the Board it is instructive to notice that Greek G is first, Greek CH is second, Greek A2 is third and Greek C is fourth."

At the end of his pamphlet Dr. Forbes gives tables, prepared by himself, showing the results of the College Entrance Board examinations in 1915 and 1916, in which the subjects of the several papers are arranged in the order of the success of the candidate in dealing with them. The last two tables give the combined results in all the papers set in each department of study, i.e. all the Latin papers (12 in 1915, 8 in 1916) are combined under the title "Latin," etc. These tables present so clearly the actual facts, and make Dr. Flexner's methods in deducing his sweeping conclusions so patent, that they are here reproduced in full:

RESULTS OF THE C. E. E. B. EXAMINATIONS

Prepared by C. H. Forbes

1915—All Candidates

Percentage of failures to secure 60 per cent, in order of superiority

| | Candidates | Per cent of failures |
|---|---|---|
| 1 Greek G, Sight Prose | 109 | 11.1 |
| 2 Greek CH, Iliad and Sight | 55 | 14.5 |
| 3 Greek A2, El. Comp. | 165 | 17 |
| 4 Greek C, Iliad I-III | 45 | 17.8 |
| 5 Zoology | 15 | 20 |

| | | | |
|---|---|---|---|
| I, Grammar | 1098 | . . . | 31.2 |
| B, Xenophon | 170 | . . . | 31.2 |
| A1, Grammar | 143 | . . . | 32.2 |
| 2, El. Comp. | 779 | . . . | 32.7 |
| E., Trig. | 46 | . . . | 32.7 |
| B, Harmony | 6 | . . . | 33.4 |
| 3, Second Year | 971 | . . . | 34.1 |
| ı B | 839 | . . . | 34.5 |
| r | 17 | . . . | 35.3 |
| n | 1307 | . . . | 37 |
| y | 16 | . . . | 37.5 |
| 5, Virgil and Sight | 776 | . . . | 38.9 |
| ı A | 1441 | . . . | 40.1 |
| s | 748 | . . . | 40.7 |
| C, Pl. Geometry | 1936 | . . . | 42.4 |
| F, Comp. | 51 | . . . | 43.1 |
| ı B, Study and Prac. | 696 | . . . | 44.9 |
| F, Pl. Trig. | 411 | . . . | 45.5 |
| ı, Adv. Comp. | 730 | . . . | 46.2 |
| P, Adv. Sight Prose | 39 | . . . | 46.2 |
| M, El. Sight Prose | 15 | . . . | 46.7 |
| try | 550 | . . . | 47.5 |
| g | 71 | . . . | 47.9 |
| ı B | 623 | . . . | 49 |
| B, Caesar | 212 | . . . | 49.6 |
| BC | 62 | . . . | 51.2 |
| ı 1, Grammar | 1734 | . . . | 52.5 |
| ı, Cicero and Sight | 1210 | . . . | 53.1 |
| B, Adv. Alg. | 241 | . . . | 54 |
| A1, to Quadratics | 805 | . . . | 55.4 |
| D, Solid Geom. | 551 | . . . | 56.3 |
| A, El. Alg. | 1380 | . . . | 56.4 |
| D, Pianoforte, etc. | 7 | . . . | 57.1 |
| ı | 30 | . . . | 60 |
| A, Appreciation | 5 | . . . | 60 |
| r B, Med. & Mod. | 38 | . . . | 63.8 |
| phy | 31 | . . . | 64.5 |
| r C, English | 988 | . . . | 65.3 |
| r A, Ancient | 930 | . . . | 66.7 |
| 2, Sight Poetry | 21 | . . . | 66.7 |
| A2, Quad. and Beyond | 674 | . . . | 69.7 |
| ı BC | 86 | . . . | 70.9 |

| | | | |
|---|---|---|---|
| 48 | History D, American | 690 | 72.1 |
| 49 | English 2, Literature | 959 | 73.7 |
| 50 | Latin D, Aeneid I-VI | 64 | 75 |
| 51 | Latin C, Cicero | 64 | 76.6 |

1916—All Candidates

Percentage of failures to secure 60 per cent in subjects, arranged in order of superiority

| | | Candidates | Per cent of Failures |
|---|---|---|---|
| 1 | Greek G, Sight Prose | 24 | 12.5 |
| 2 | Greek BG, Xen. and Sight | 255 | 23.9 |
| 3 | Latin 5, Virgil and Sight | 1696 | 24.8 |
| 4 | French A | 2872 | 25.0 |
| 5 | Greek CH, Homer and Sight | 134 | 25.4 |
| 6 | French B | 1624 | 26.8 |
| 7 | Botany | 72 | 29.2 |
| 8 | Latin 3, Second Year | 2115 | 31.3 |
| 9 | Latin 2, El. Comp. | 1614 | 35.2 |
| 10 | Zoology | 16 | 37.5 |
| 11 | Math. E., Trig. | 107 | 39.2 |
| 12 | Greek B, Xen. | 58 | 39.7 |
| 13 | Greek C, Homer | 92 | 41.3 |
| 14 | Latin 1, Grammar | 1722 | 41.9 |
| 15 | Latin 4, Cicero and Sight | 2490 | 42.7 |
| 16 | Latin 6, Adv. Comp. | 1981 | 43.7 |
| 17 | Math. F, Plane Trig. | 876 | 44.2 |
| 18 | German A | 2546 | 44.7 |
| 19 | Math. A1, Alg. to Quad. | 1919 | 46.5 |
| 20 | Geography | 84 | 50 |
| 21 | Physics | 1631 | 51.2 |
| 22 | Greek F, Prose Comp. | 41 | 51.2 |
| 23 | Biology | 207 | 51.7 |
| 24 | Greek A2, El. Comp. | 307 | 52.2 |
| 25 | German BC | 104 | 52.2 |
| 26 | Math. A2, Quad. and Beyond | 297 | 53.2 |
| 27 | French BC | 106 | 54.7 |
| 28 | English 2 | 3199 | 54.8 |
| 29 | Drawing (Free) | 93 | 57 |

| | | |
|---|---|---|
| istry | 1313 | 57.7 |
| ish 1, Grammar | 4163 | 59.3 |
| an B | 1133 | 59.4 |
| A, El. Alg. | 3179 | 61.8 |
| B, Adv. Alg. | 547 | 61.8 |
| C, Plane Geom. | 3775 | 62 |
| A1, Grammar | 271 | 62 |
| ry A, Ancient | 2173 | 63.3 |
| Q, Sight Poetry | 42 | 66.7 |
| ing (Mech.) | 153 | 72.5 |
| D, Solid Geom. | 1152 | 73.9 |
| ry C, English | 722 | 76.5 |
| ish | 92 | 77.2 |
| ry B, Med. and Mod. | 150 | 77.3 |
| ry D, American | 1451 | 79 |
| Gov't | 65 | 83.1 |
| P, Sight Prose | 40 | 87.5 |

1915—All Candidates

Percentage of all candidates in each department failing to secure 60 per cent

| | Candidates | Per cent of Failures |
|---|---|---|
| gy | 15 | 20 |
| k | 738 | 23.9 |
| ny | 17 | 35.3 |
| gy | 16 | 37.5 |
| ch | 2362 | 38.5 |
| ics | 748 | 40.7 |
| | 5979 | 41 |
| an | 2016 | 42.1 |
| istry | 550 | 47.5 |
| ring | 71 | 47.9 |
| c | 18 | 50 |
| ematics | 6044 | 52.3 |
| ish | 3389 | 56.9 |
| ish | 30 | 60 |
| raphy | 31 | 64.5 |
| ry | 1966 | 68.2 |

1916—All Candidates

Percentage of all candidates in each department failing to secure 60 per cent

| | | Candidates | Per cent of Failures |
|---|---|---|---|
| 1 | French | 4602 | 96.3 |
| 2 | Botany | 72 | 99.9 |
| 3 | Latin | 11000 | 96.9 |
| 4 | Zoology | 16 | 87.5 |
| 5 | Greek | 1189 | 48 |
| 6 | Music | 19 | 47.3 |
| 7 | German | 3783 | 49.4 |
| 8 | Geography | 84 | 50 |
| 9 | Physics | 1631 | 50.9 |
| 10 | Biology | 907 | 51.7 |
| 11 | Chemistry | 1313 | 57.7 |
| 12 | English | 7282 | 58.3 |
| 13 | Mathematics | 11752 | 59.5 |
| 14 | Drawing | 246 | 66.6 |
| 15 | History | 4406 | 70.9 |
| 16 | Spanish | 99 | 77.8 |
| 17 | Civil Gov't. | 65 | 83.1 |

Since Dr. Abraham Flexner directed his attack not only against the study of Greek and Latin but also against the current teaching of the classics, and since classical teachers, being under indictment, might be supposed to be prejudiced witnesses, even in dealing with published statistics, Dean West requested a specialist in statistics, Professor Adriance of Princeton, to give a professional opinion upon the statistical portion of Dr. Flexner's argument. This opinion was published in the Pamphlet of the Conference under the title of "Misleading Statistics," and is here reproduced:

May 28, 1917.

DEAN ANDREW F. WEST,

Dear Sir:

At your request I have read Dr. Abraham Flexner's paper "A Modern School" for the purpose of examining his use of statistics.

Dr. Flexner holds that tradition determines the present day curriculum, which for this reason fails, as a system of education, to meet the demands of modern life. He says on page six of his pamphlet:

> "It is perhaps worth while stopping long enough to show by figures the extent to which our current teaching fails. . . . We know that a large percentage of the better students of these subjects (referring to Latin, algebra and geometry) try the College Entrance Examinations, and that for these examinations many receive special drill in addition to the regular teaching. Now in the examinations held by the College Entrance Board in 1915, 76.6 per cent of the candidates failed to make even a mark of 60 per cent in Cicero; 75 per cent failed to make a mark of 60 per cent in the first six books of Virgil, every line of which they had presumably read and reread; 69.7 per cent of those examined in algebra from quadratics on failed to make as much as 60 per cent; 42.4 per cent failed to make 60 per cent in plane geometry."

Dr. Flexner would have a "modern" curriculum with four main subdivisions—science, industry, aesthetics, and civics (p. 10). He says further (p. 18):

> "Neither Latin nor Greek should be contained in

### A. Combined Ratings in All the Non-Classical Subjects

Candidates who obtained a rating of 90 to 100
2.95 per cent of all the classical candidates
2.05 per cent of all the non-classical candidates
The classical students show a superiority of 44 per cent.

Candidates who obtained a rating of 75 to 89
17.31 per cent of all the classical candidates
12.31 per cent of all the non-classical candidates
The classical students show a superiority of about 40 per cent.

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51.96 per cent of all the classical candidates
40.97 per cent of all the non-classical candidates
The classical students show a superiority of about 27 per cent.

### B. Ratings in the Individual Non-classical Subjects

In all but one of these subjects taken by any large number of candidates, the classical students show a marked superiority over the non-classical. This is especially true in the case of the high ratings, the proportion of classical students attaining them being noticeably larger. The single exception is physics, in which about one per cent more of the non-classical candidates than of the classical candidates passed the examinations. But the classical group excelled the others in the higher grades even in physics, the rating of 90 to 100 having been obtained by 7.64 per cent of the classical candidates and by 6.79 per cent of the non-classical.

In English the classical candidates had an advantage,

ranging from 235 per cent in the highest rating (90 to 100) to 58 per cent in the passing grade (i.e., 58 per cent of the classical candidates passed as against 88.5 per cent of the non-classical).

In history the classical candidates surpassed the non-classical in all three ratings, their superiority being 107.5 per cent in the highest rating, 84.4 per cent in the next, and 29.4 per cent in the record of those who passed.

In mathematics the classical candidates were more successful in all ratings, especially in the rating 90 to 100, where they showed a superiority of 59 per cent (4.47 per cent, as compared with 2.81).

In physics, as already noted, the classical students were slightly behind the non-classical, the inferiority in the passing grade being 2.5 per cent (52.73 per cent as compared with 54.06). In chemistry, on the other hand, their superiority was 12 per cent (51.94 per cent as compared with 46.37) in the case of those who passed the examinations.

In French and German the classical candidates were decidedly ahead in all grades for both subjects, their superiority in the highest grade being 89 per cent for French and 125 per cent for German.

The number of candidates in the other subjects is too small to yield percentages of any significance. For example, civil government was taken by 65 candidates, zoology by 58, drawing by 224, music by 86, biology by 235, botany by 111, Spanish by 146 and geography by 160. But it may be noted that the non-classical students excelled somewhat in civil government, zoology and drawing, while the classical candidates who obtained the rating of 90 to 100 in drawing were more numerous; and that in music, biology, botany, Spanish and geography the classical candidates again excelled.

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"In the figures for Virgil he has exercised the same skill in the manipulation of statistics, for he chose Latin D, another course then given for the last time, and which only *64* students took. 75 per cent of these did fail to get a grade of 60 per cent. But the real test, Latin 5, Virgil and sight, was taken by 776 candidates, of whom 38.9 per cent failed to get a grade of 60 per cent. This is 36.1 per cent better than the Virgil which he chose for illuminating purposes. Of these two craftily selected examinations out of a total of 12 in Latin, he proceeded to generalize upon the subject of Latin as an egregious failure.

"I submit that any fair judgment of the statistics of Latin must premise the inclusion of its 12 parts in those statistics. Now the general average of the 5979 Latin examinations reveals the fact that just 41 per cent of the candidates failed to secure a grade of 60 per cent. This is not 76.6 per cent by a long shot. The general average of *recommended* students was 81.6 per cent. These appear to be formidable losses, and are in part properly chargeable to poor teaching, but when we compare this 41 per cent failure with the results in other subjects of the Board examinations, we discover that, in a total list of 16 subjects, Latin stands seventh in excellence. Latin had 5979 papers. Three of those subjects which stood higher than Latin were zoology with just 15 papers, botany with 17 and biology with 16. I submit that these numbers are too trivial to allow of any comparative judgment with a subject involving almost 6,000 examinations. Eliminating them, we find that Latin stands fourth in the list of considerable subjects for which a reasonable basis of judgment is at hand. But on any basis, if Latin is despicable, what must we say of German, chemistry, drawing, music, mathematics, English, Spanish, geography and history, all of which are below it? Latin stands fifth on the entire list of recommended students. . . .

"Dr. Flexner shrewdly refrains from mentioning Greek; it is so hopelessly dead, as people think. But here again let us examine the facts. There were 738 papers in Greek subjects. We may get an illuminating view of the popularity of some subjects by observing that the *total* number of candidates in biology, botany, geology, zoology, drawing and music all together was 168, or 2 less than the number that took Xenophon

alone in Greek! Poor old Greek need not yet hide its comely form in a winding sheet. In general average Greek, with 738 examinations, stood second on the list of 16 subjects with a record of 23.9 per cent of failures to secure a grade of 60 per cent. Zoology, with only 15 candidates, is hardly entitled to its position as first. In the total list of 51 examinations given by the Board it is instructive to notice that Greek G is first, Greek CH is second, Greek A2 is third and Greek C is fourth."

At the end of his pamphlet Dr. Forbes gives tables, prepared by himself, showing the results of the College Entrance Board examinations in 1915 and 1916, in which the subjects of the several papers are arranged in the order of the success of the candidate in dealing with them. The last two tables give the combined results in all the papers set in each department of study, i.e. all the Latin papers (12 in 1915, 8 in 1916) are combined under the title "Latin," etc. These tables present so clearly the actual facts, and make Dr. Flexner's methods in deducing his sweeping conclusions so patent, that they are here reproduced in full:

RESULTS OF THE C. E. E. B. EXAMINATIONS

Prepared by C. H. Forbes

1915—All Candidates

Percentage of failures to secure 60 per cent, in order of superiority

| | Candidates | Per cent of failures |
|---|---|---|
| 1 Greek G, Sight Prose | 109 | 11.1 |
| 2 Greek CH, Iliad and Sight | 55 | 14.5 |
| 3 Greek A2, El. Comp. | 165 | 17 |
| 4 Greek C, Iliad I-III | 45 | 17.8 |
| 5 Zoology | 15 | 20 |

| | | | |
|---|---|---|---|
| I, Grammar | 1098 | . . . | 31.2 |
| B, Xenophon | 170 | . . . | 31.2 |
| A1, Grammar | 143 | . . . | 32.2 |
| , El. Comp. | 779 | . . . | 32.7 |
| E., Trig. | 46 | . . . | 32.7 |
| B, Harmony | 6 | . . . | 33.4 |
| , Second Year | 971 | . . . | 34.1 |
| B | 839 | . . . | 34.5 |
| | 17 | . . . | 35.3 |
| | 1307 | . . . | 37 |
| | 16 | . . . | 37.5 |
| , Virgil and Sight | 776 | . . . | 38.9 |
| A | 1441 | . . . | 40.1 |
| | 748 | . . . | 40.7 |
| , Pl. Geometry | 1936 | . . . | 42.4 |
| F, Comp. | 51 | . . . | 43.1 |
| B, Study and Prac. | 696 | . . . | 44.9 |
| P, Pl. Trig. | 411 | . . . | 45.3 |
| , Adv. Comp. | 730 | . . . | 46.2 |
| , Adv. Sight Prose | 39 | . . . | 46.2 |
| , El. Sight Prose | 15 | . . . | 46.7 |
| ry | 550 | . . . | 47.5 |
| | 71 | . . . | 47.9 |
| B | 623 | . . . | 49 |
| , Caesar | 919 | . . . | 49.6 |
| BC | 89 | . . . | 51.2 |
| 1, Grammar | 1734 | . . . | 52.5 |
| , Cicero and Sight | 1210 | . . . | 53.1 |
| , Adv. Alg. | 241 | . . . | 54 |
| 11, to Quadratics | 805 | . . . | 55.4 |
| ), Solid Geom. | 551 | . . . | 56.3 |
| , El. Alg. | 1380 | . . . | 56.4 |
| ), Pianoforte, etc. | 7 | . . . | 57.1 |
| | 30 | . . . | 60 |
| , Appreciation | 5 | . . . | 60 |
| B, Med. & Mod. | 58 | . . . | 63.8 |
| hy | 31 | . . . | 64.5 |
| C, English | 288 | . . . | 65.3 |
| A, Ancient | 930 | . . . | 66.7 |
| , Sight Poetry | 21 | . . . | 66.7 |
| 2, Quad. and Beyond | 674 | . . . | 69.7 |
| BC | 86 | . . . | 70.9 |

| | | | |
|---|---|---|---|
| 48 History D, American | 690 | . . . | 72.1 |
| 49 English 2, Literature | 959 | . . . | 73.7 |
| 50 Latin D, Aeneid I-VI | 64 | . . . | 75 |
| 51 Latin C, Cicero | 64 | . . . | 76.6 |

1916—All Candidates

Percentage of failures to secure 60 per cent in subjects, arranged in order of superiority

| | Candidates | Per cent of Failures |
|---|---|---|
| 1 Greek G, Sight Prose | 24 | 12.5 |
| 2 Greek BG, Xen. and Sight | 255 | 23.9 |
| 3 Latin 5, Virgil and Sight | 1696 | 24.5 |
| 4 French A | 2872 | 25.0 |
| 5 Greek CH, Homer and Sight | 134 | 25.4 |
| 6 French B | 1624 | 26.8 |
| 7 Botany | 72 | 29.2 |
| 8 Latin 3, Second Year | 2115 | 31.3 |
| 9 Latin 2, El. Comp. | 1614 | 35.2 |
| 10 Zoology | 16 | 37.5 |
| 11 Math. E., Trig. | 107 | 39.2 |
| 12 Greek B, Xen. | 58 | 39.7 |
| 13 Greek C, Homer | 92 | 41.3 |
| 14 Latin 1, Grammar | 1723 | 41.9 |
| 15 Latin 4, Cicero and Sight | 2490 | 42.7 |
| 16 Latin 6, Adv. Comp. | 1981 | 43.7 |
| 17 Math. F, Plane Trig. | 876 | 44.2 |
| 18 German A | 2546 | 44.7 |
| 19 Math. A1, Alg. to Quad. | 1919 | 46.5 |
| 20 Geography | 84 | 50 |
| 21 Physics | 1631 | 51.2 |
| 22 Greek F, Prose Comp. | 41 | 51.2 |
| 23 Biology | 907 | 51.7 |
| 24 Greek A2, El. Comp. | 307 | 52.2 |
| 25 German BC | 104 | 52.2 |
| 26 Math. A2, Quad. and Beyond | 897 | 53.2 |
| 27 French BC | 106 | 54.7 |
| 28 English 2 | 3199 | 56.2 |
| 29 Drawing (Free) | 98 | 57 |

| | | |
|---|---|---|
| istry | 1313 | 57.7 |
| ish 1, Grammar | 4163 | 59.3 |
| an B | 1133 | 59.4 |
| A, El. Alg. | 3179 | 61.8 |
| B, Adv. Alg. | 547 | 61.8 |
| C, Plane Geom. | 3775 | 62 |
| k A1, Grammar | 271 | 62 |
| ry A, Ancient | 2173 | 63.3 |
| Q, Sight Poetry | 42 | 66.7 |
| ring (Mech.) | 153 | 72.5 |
| D, Solid Geom. | 1152 | 73.9 |
| ry C, English | 722 | 76.5 |
| ish | 92 | 77.2 |
| ry B, Med. and Mod. | 150 | 77.3 |
| ry D, American | 1451 | 79 |
| Gov't | 65 | 83.1 |
| P, Sight Prose | 40 | 87.5 |

1915—All Candidates

Percentage of all candidates in each department failing to secure 60 per cent

| | Candidates | Per cent of Failures |
|---|---|---|
| gy | 15 | 20 |
| k | 738 | 23.9 |
| ay | 17 | 35.3 |
| gy | 16 | 37.5 |
| ch | 2362 | 38.5 |
| ics | 748 | 40.7 |
| | 5979 | 41 |
| an | 2016 | 42.1 |
| istry | 550 | 47.5 |
| ring | 71 | 47.9 |
| e | 18 | 50 |
| ematics | 6044 | 52.3 |
| ish | 3389 | 56.9 |
| ish | 30 | 60 |
| raphy | 31 | 64.5 |
| ry | 1966 | 68.2 |

1916—All Candidates

Percentage of all candidates in each department failing to secure 60 per cent

| | | Candidates | Per cent of Failures |
|---|---|---|---|
| 1 | French | 4602 | 96.3 |
| 2 | Botany | 72 | 29.2 |
| 3 | Latin | 11000 | 36.9 |
| 4 | Zoology | 16 | 37.5 |
| 5 | Greek | 1182 | 43 |
| 6 | Music | 19 | 47.3 |
| 7 | German | 3783 | 48.4 |
| 8 | Geography | 84 | 50 |
| 9 | Physics | 1631 | 50.3 |
| 10 | Biology | 907 | 51.7 |
| 11 | Chemistry | 1313 | 57.7 |
| 12 | English | 7282 | 58.3 |
| 13 | Mathematics | 11752 | 59.5 |
| 14 | Drawing | 246 | 66.5 |
| 15 | History | 4496 | 70.9 |
| 16 | Spanish | 92 | 77.2 |
| 17 | Civil Gov't. | 65 | 83.1 |

Since Dr. Abraham Flexner directed his attack not only against the study of Greek and Latin but also against the current teaching of the classics, and since classical teachers, being under indictment, might be supposed to be prejudiced witnesses, even in dealing with published statistics, Dean West requested a specialist in statistics, Professor Adriance of Princeton, to give a professional opinion upon the statistical portion of Dr. Flexner's argument. This opinion was published in the Pamphlet of the Conference under the title of "Misleading Statistics," and is here reproduced:

May 28, 1917.

DEAN ANDREW F. WEST,

Dear Sir:

At your request I have read Dr. Abraham Flexner's paper "A Modern School" for the purpose of examining his use of statistics.

Dr. Flexner holds that tradition determines the present day curriculum, which for this reason fails, as a system of education, to meet the demands of modern life. He says on page six of his pamphlet:

> "It is perhaps worth while stopping long enough to show by figures the extent to which our current teaching fails. . . . We know that a large percentage of the better students of these subjects (referring to Latin, algebra and geometry) try the College Entrance Examinations, and that for these examinations many receive special drill in addition to the regular teaching. Now in the examinations held by the College Entrance Board in 1915, 76.6 per cent of the candidates failed to make even a mark of 60 per cent in Cicero; 75 per cent failed to make a mark of 60 per cent in the first six books of Virgil, every line of which they had presumably read and reread; 69.7 per cent of those examined in algebra from quadratics on failed to make as much as 60 per cent; 42.4 per cent failed to make 60 per cent in plane geometry."

Dr. Flexner would have a "modern" curriculum with four main subdivisions—science, industry, aesthetics, and civics (p. 10). He says further (p. 18):

> "Neither Latin nor Greek should be contained in

> the curriculum of the Modern School. . . . A positive case can be made out for neither. . . . I have quoted figures to show how egregiously we fail to teach Latin. These figures mean that instead of getting orderly training by solving difficulties in Latin translation or composition, pupils guess, fumble, receive surreptitious assistance, or accept on faith the injunctions of teacher and grammar. The only discipline that most students get from their classical studies is a discipline in doing things as they should not be done."

A comparison of the passages just quoted with the figures as they stand in the Report of the College Entrance Examination Board makes it clear that the statistics have been misused in a very extraordinary way.

In the first place (as was pointed out by W. V. McDuffee, President of the Massachusetts State Teachers' Association, in the New York Times of Feb. 5, 1917), Dr. Flexner's statement that "a large percentage of the better students of Latin try the College Entrance Board Examinations," was probably not correct. On the contrary, those who took these examinations were largely candidates not well qualified to pass the examinations of particular colleges, or to obtain certificates for entrance to those colleges which were in the habit of admitting on certificate. Dr. Flexner's figures have to do, then, not with the "better students" of Latin, as he contends, but with a group from which most or many of the better students had been eliminated, either by having taken the examinations of the particular institutions they intended to enter, or by having secured admission to college on the certificate plan.

Dr. McDuffee has also pointed out that in trying to show that Latin is not being successfully taught, Dr. Flexner did not take all the facts into account, but made an entirely improper *selection* from the data at hand. The figures (concerning Latin subjects) which Dr. Flexner had before him are here reproduced. They are found in the fifteenth Annual Report of the Secretary of the College Entrance Examination Board, 1915, page 50.

| | Latin | No. of Candidates | Percentage making 60 or above |
|---|---|---|---|
| 1 | Grammar | 1096 | 68.8 |
| 2 | Elementary Composition | 779 | 67.2 |
| 3 | Second Year | 971 | 64.9 |
| 4 | Cicero and Sight | 1210 | 44.9 |
| 5 | Virgil and Sight | 776 | 61.1 |
| 6 | Advanced Composition | 730 | 53.8 |
| 7 | Caesar | 919 | 50.4 |
| 8 | Cicero | 64 | 25.4 |
| 9 | Aeneid I-VI. | 64 | 25.0 |
| 10 | Elementary Sight Prose | 15 | 53.3 |
| 11 | Advanced Sight Prose | 30 | 53.3 |
| 12 | Sight Poetry | 21 | 33.3 |
| | Total | 5979 | 59.0 |

The matters to be noted here are as follows: Of the total number of papers in Latin (5979), 59 per cent scored 60 or above. The very lowest figures are for items 8 and 9 above, namely Cicero and the Aeneid. In these two subjects there were only 64 candidates (in each), as compared with 1210 in "Cicero and Sight" and 776 in "Virgil and Sight." In the two together there were only 128 candidates out of a total of 5979. But these two subjects are the ones selected by Dr. Flexner to show "how egregiously we fail to teach Latin."

In a pamphlet entitled "The Sham Argument against Latin" (1917) Professor Charles H. Forbes, of Phillips Andover Academy, after quoting Dr. Abraham Flexner's paragraph (introduced below, p. 375, in the letter of Professor Adriance) which is designed to prove the failure of the current teaching of Latin, makes the following rejoinder:

"In 1915 the Board set 12 different examinations in Latin. Amongst these was Latin C, an examination in Cicero given in that year for the last time. Only *64* candidates, of whom 34 were recommended by their teachers, tried the examination, because it was obsolete. 76.6 per cent of these 64 did fail to get 60 per cent. The main examination, however, as nobody could fail to know, with the report before his eyes, was Latin 4, Cicero and sight, a more severe test of Latin knowledge. This examination was taken by 1,210 candidates, of whom 53.1 per cent failed to get 60 per cent. This was a bad showing, of course, but it is 22.5 per cent better than the trivial examination of 64 students which he [Dr. Flexner] chose as representative. . . .

"In the figures for Virgil he has exercised the same skill in the manipulation of statistics, for he chose Latin D, another course then given for the last time, and which only *64* students took. 75 per cent of these did fail to get a grade of 60 per cent. But the real test, Latin 5, Virgil and sight, was taken by 776 candidates, of whom 38.9 per cent failed to get a grade of 60 per cent. This is 36.1 per cent better than the Virgil which he chose for illuminating purposes. Of these two craftily selected examinations out of a total of 12 in Latin, he proceeded to generalize upon the subject of Latin as an egregious failure.

"I submit that any fair judgment of the statistics of Latin must premise the inclusion of its 12 parts in those statistics. Now the general average of the 5979 Latin examinations reveals the fact that just 41 per cent of the candidates failed to secure a grade of 60 per cent. This is not 76.6 per cent by a long shot. The general average of *recommended* students was 81.6 per cent. These appear to be formidable losses, and are in part properly chargeable to poor teaching, but when we compare this 41 per cent failure with the results in other subjects of the Board examinations, we discover that, in a total list of 16 subjects, Latin stands seventh in excellence. Latin had 5979 papers. Three of those subjects which stood higher than Latin were zoology with just 15 papers, botany with 17 and biology with 16. I submit that these numbers are too trivial to allow of any comparative judgment with a subject involving almost 6,000 examinations. Eliminating them, we find that Latin stands fourth in the list of considerable subjects for which a reasonable basis of judgment is at hand. But on any basis, if Latin is despicable, what must we say of German, chemistry, drawing, music, mathematics, English, Spanish, geography and history, all of which are below it? Latin stands fifth on the entire list of recommended students. . . .

"Dr. Flexner shrewdly refrains from mentioning Greek; it is so hopelessly dead, as people think. But here again let us examine the facts. There were 738 papers in Greek subjects. We may get an illuminating view of the popularity of some subjects by observing that the *total* number of candidates in biology, botany, geology, zoology, drawing and music all together was 168, or 2 less than the number that took Xenophon

alone in Greek! Poor old Greek need not yet hide its comely form in a winding sheet. In general average Greek, with 738 examinations, stood second on the list of 16 subjects with a record of 28.9 per cent of failures to secure a grade of 60 per cent. Zoology, with only 15 candidates, is hardly entitled to its position as first. In the total list of 51 examinations given by the Board it is instructive to notice that Greek G is first, Greek CH is second, Greek A2 is third and Greek C is fourth."

At the end of his pamphlet Dr. Forbes gives tables, prepared by himself, showing the results of the College Entrance Board examinations in 1915 and 1916, in which the subjects of the several papers are arranged in the order of the success of the candidate in dealing with them. The last two tables give the combined results in all the papers set in each department of study, i.e. all the Latin papers (12 in 1915, 8 in 1916) are combined under the title "Latin," etc. These tables present so clearly the actual facts, and make Dr. Flexner's methods in deducing his sweeping conclusions so patent, that they are here reproduced in full:

RESULTS OF THE C. E. E. B. EXAMINATIONS

Prepared by C. H. Forbes

1915—All Candidates

Percentage of failures to secure 60 per cent, in order of superiority

| | Candidates | Per cent of failures |
|---|---|---|
| 1 Greek G, Sight Prose | 109 | 11.1 |
| 2 Greek CH, Iliad and Sight | 55 | 14.5 |
| 3 Greek A2, El. Comp. | 165 | 17 |
| 4 Greek C, Iliad I-III | 45 | 17.8 |
| 5 Zoology | 15 | 20 |

| | | | |
|---|---|---|---|
| 6 | Latin I, Grammar | 1096 | 31.9 |
| 7 | Greek B, Xenophon | 170 | 31.9 |
| 8 | Greek A1, Grammar | 148 | 32.9 |
| 9 | Latin 2, El. Comp. | 779 | 33.7 |
| 10 | Math. E., Trig. | 46 | 33.7 |
| 11 | Music B, Harmony | 6 | 33.6 |
| 12 | Latin 3, Second Year | 971 | 34.1 |
| 13 | French B | 839 | 34.5 |
| 14 | Botany | 17 | 35.3 |
| 15 | German | 1207 | 37 |
| 16 | Biology | 16 | 37.5 |
| 17 | Latin 5, Virgil and Sight | 776 | 38.9 |
| 18 | French A | 1441 | 40.1 |
| 19 | Physics | 748 | 40.7 |
| 20 | Math. C, Pl. Geometry | 1086 | 42.4 |
| 21 | Greek F, Comp. | 51 | 42.1 |
| 22 | English B, Study and Prac. | 696 | 44.9 |
| 23 | Math. F, Pl. Trig. | 411 | 45.2 |
| 24 | Latin 6, Adv. Comp. | 730 | 46.2 |
| 25 | Latin P, Adv. Sight Prose | 39 | 46.2 |
| 26 | Latin M, El. Sight Prose | 15 | 46.7 |
| 27 | Chemistry | 550 | 47.5 |
| 28 | Drawing | 71 | 47.9 |
| 29 | German B | 623 | 49 |
| 30 | Latin B, Caesar | 912 | 49.6 |
| 31 | French BC | 88 | 51.2 |
| 32 | English 1, Grammar | 1734 | 52.5 |
| 33 | Latin 4, Cicero and Sight | 1910 | 53.1 |
| 34 | Math. B, Adv. Alg. | 941 | 54 |
| 35 | Math. A1, to Quadratics | 905 | 55.6 |
| 36 | Math. D, Solid Geom. | 551 | 56.2 |
| 37 | Math. A, El. Alg. | 1380 | 56.6 |
| 38 | Music D, Pianoforte, etc. | 7 | 57.1 |
| 39 | Spanish | 30 | 60 |
| 40 | Music A, Appreciation | 5 | 60 |
| 41 | History B, Med. & Mod. | 86 | 62.8 |
| 42 | Geography | 31 | 64.5 |
| 43 | History C, English | 839 | 64.8 |
| 44 | History A, Ancient | 850 | 66.7 |
| 45 | Latin Q, Sight Poetry | 21 | 66.7 |
| 46 | Math. A2, Quad. and Beyond | 674 | 66.7 |
| 47 | German BC | 96 | 70.9 |

| | | | |
|---|---|---|---|
| 48 | History D, American | 690 | 72.1 |
| 49 | English 2, Literature | 959 | 73.7 |
| 50 | Latin D, Aeneid I-VI | 64 | 75 |
| 51 | Latin C, Cicero | 64 | 76.6 |

1916—All Candidates

Percentage of failures to secure 60 per cent in subjects, arranged in order of superiority

| | | Candidates | Per cent of Failures |
|---|---|---|---|
| 1 | Greek G, Sight Prose | 24 | 12.5 |
| 2 | Greek BG, Xen. and Sight | 255 | 22.9 |
| 3 | Latin 5, Virgil and Sight | 1696 | 24.8 |
| 4 | French A | 2872 | 25.0 |
| 5 | Greek CH, Homer and Sight | 134 | 25.4 |
| 6 | French B | 1624 | 26.8 |
| 7 | Botany | 72 | 29.2 |
| 8 | Latin 3, Second Year | 2115 | 31.5 |
| 9 | Latin 2, El. Comp. | 1614 | 35.2 |
| 10 | Zoology | 16 | 37.5 |
| 11 | Math. E., Trig. | 107 | 39.2 |
| 12 | Greek B, Xen. | 58 | 39.7 |
| 13 | Greek C, Homer | 92 | 41.3 |
| 14 | Latin 1, Grammar | 1722 | 41.9 |
| 15 | Latin 4, Cicero and Sight | 2490 | 42.7 |
| 16 | Latin 6, Adv. Comp. | 1281 | 43.7 |
| 17 | Math. F, Plane Trig. | 876 | 44.2 |
| 18 | German A | 2546 | 44.7 |
| 19 | Math. A1, Alg. to Quad. | 1219 | 48.5 |
| 20 | Geography | 84 | 50 |
| 21 | Physics | 1631 | 51.2 |
| 22 | Greek F, Prose Comp. | 41 | 51.2 |
| 23 | Biology | 207 | 51.7 |
| 24 | Greek A2, El. Comp. | 307 | 52.2 |
| 25 | German BC | 104 | 52.9 |
| 26 | Math. A2, Quad. and Beyond | 897 | 53.2 |
| 27 | French BC | 106 | 54.7 |
| 28 | English 2 | 3199 | 54.8 |
| 29 | Drawing (Free) | 98 | 57 |

| | | |
|---|---|---|
| istry | 1313 | 57.7 |
| ish 1, Grammar | 4163 | 59.3 |
| an B | 1133 | 59.4 |
| . A, El. Alg. | 3179 | 61.8 |
| . B, Adv. Alg. | 547 | 61.8 |
| . C, Plane Geom. | 3775 | 62 |
| k A1, Grammar | 271 | 62 |
| ory A, Ancient | 2173 | 63.3 |
| . Q, Sight Poetry | 42 | 66.7 |
| ving (Mech.) | 153 | 72.5 |
| . D, Solid Geom. | 1152 | 73.9 |
| ory C, English | 722 | 76.5 |
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| Gov't | 65 | 83.1 |
| . P, Sight Prose | 40 | 87.5 |

1915—All Candidates

Percentage of all candidates in each department failing to secure 60 per cent

| | Candidates | Per cent of Failures |
|---|---|---|
| gy | 15 | 20 |
| k | 738 | 23.9 |
| ny | 17 | 35.3 |
| gy | 16 | 37.5 |
| ch | 2362 | 38.5 |
| ics | 746 | 40.7 |
| n | 5979 | 41 |
| an | 2016 | 42.1 |
| nistry | 550 | 47.5 |
| wing | 71 | 47.9 |
| ic | 18 | 50 |
| hematics | 6044 | 52.3 |
| lish | 3389 | 56.9 |
| ish | 30 | 60 |
| graphy | 31 | 64.5 |
| ory | 1966 | 68.2 |

1916—All Candidates

Percentage of all candidates in each department failing to secure 60 per cent

| | | Candidates | Per cent of Failures |
|---|---|---|---|
| 1 | French | 4602 | 26.3 |
| 2 | Botany | 72 | 29.2 |
| 3 | Latin | 11000 | 36.9 |
| 4 | Zoology | 16 | 37.5 |
| 5 | Greek | 1182 | 43 |
| 6 | Music | 19 | 47.3 |
| 7 | German | 3783 | 49.4 |
| 8 | Geography | 84 | 50 |
| 9 | Physics | 1631 | 50.2 |
| 10 | Biology | 907 | 51.7 |
| 11 | Chemistry | 1313 | 57.7 |
| 12 | English | 7382 | 58.3 |
| 13 | Mathematics | 11752 | 59.5 |
| 14 | Drawing | 246 | 66.6 |
| 15 | History | 4406 | 70.9 |
| 16 | Spanish | 92 | 77.2 |
| 17 | Civil Gov't. | 65 | 83.1 |

Since Dr. Abraham Flexner directed his attack not only against the study of Greek and Latin but also against the current teaching of the classics, and since classical teachers, being under indictment, might be supposed to be prejudiced witnesses, even in dealing with published statistics, Dean West requested a specialist in statistics, Professor Adriance of Princeton, to give a professional opinion upon the statistical portion of Dr. Flexner's argument. This opinion was published in the Pamphlet of the Conference under the title of "Misleading Statistics," and is here reproduced:

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Dr. Flexner would have a "modern" curriculum with four main subdivisions—science, industry, aesthetics, and civics (p. 10). He says further (p. 18):

> "Neither Latin nor Greek should be contained in

> the curriculum of the Modern School. . . . A positive case can be made out for neither. . . . I have quoted figures to show how egregiously we fail to teach Latin. These figures mean that instead of getting orderly training by solving difficulties in Latin translation or composition, pupils guess, fumble, receive surreptitious assistance, or accept on faith the injunctions of teacher and grammar. The only discipline that most students get from their classical studies is a discipline in doing things as they should not be done."

A comparison of the passages just quoted with the figures as they stand in the Report of the College Entrance Examination Board makes it clear that the statistics have been misused in a very extraordinary way.

In the first place (as was pointed out by W. V. McDuffee, President of the Massachusetts State Teachers' Association, in the New York Times of Feb. 5, 1917), Dr. Flexner's statement that "a large percentage of the better students of Latin try the College Entrance Board Examinations," was probably not correct. On the contrary, those who took these examinations were largely candidates not well qualified to pass the examinations of particular colleges, or to obtain certificates for entrance to those colleges which were in the habit of admitting on certificate. Dr. Flexner's figures have to do, then, not with the "better students" of Latin, as he contends, but with a group from which most or many of the better students had been eliminated, either by having taken the examinations of the particular institutions they intended to enter, or by having secured admission to college on the certificate plan.

Dr. McDuffee has also pointed out that in trying to show that Latin is not being successfully taught, Dr. Flexner did not take all the facts into account, but made an entirely improper *selection* from the data at hand. The figures (concerning Latin subjects) which Dr. Flexner had before him are here reproduced. They are found in the fifteenth Annual Report of the Secretary of the College Entrance Examination Board, 1915, page 50.

| | Latin | No. of Candidates | Percentage making 60 or above |
|---|---|---|---|
| 1 | Grammar | 1096 | 68.8 |
| 2 | Elementary Composition | 779 | 67.2 |
| 3 | Second Year | 971 | 64.9 |
| 4 | Cicero and Sight | 1210 | 46.9 |
| 5 | Virgil and Sight | 776 | 61.1 |
| 6 | Advanced Composition | 730 | 53.8 |
| 7 | Caesar | 919 | 50.4 |
| 8 | Cicero | 64 | 23.4 |
| 9 | Aeneid I-VI. | 64 | 25.0 |
| 10 | Elementary Sight Prose | 15 | 53.3 |
| 11 | Advanced Sight Prose | 30 | 53.3 |
| 12 | Sight Poetry | 21 | 33.3 |
| | Total | 5979 | 59.0 |

The matters to be noted here are as follows: Of the total number of papers in Latin (5979), 59 per cent scored 60 or above. The very lowest figures are for items 8 and 9 above, namely Cicero and the Aeneid. In these two subjects there were only 64 candidates (in each), as compared with 1210 in "Cicero and Sight" and 776 in "Virgil and Sight." In the two together there were only 128 candidates out of a total of 5979. But these two subjects are the ones selected by Dr. Flexner to show "how egregiously we fail to teach Latin."

The significant thing about the table is that 59 per cent of all papers submitted scored 60 or better. And if the statistics had included students offering Latin for entrance at the special examinations held by the colleges as well as at the examinations given by the Board, there is reason to think the showing would have been still better. At any rate it is clear that Dr. Flexner's figures as cited are not representative of the facts as disclosed by the table.

And a little further down in the column which Dr. Flexner had before him we find for Greek the remarkably high percentage of 76.1. Surely if we can infer from this column anything as to the success attained in teaching the various subjects, we must conclude that Greek and Latin are taught more successfully than almost any other subject. Dr. Flexner, omitting entirely the 76 per cent for Greek, leaves us with the quite erroneous impression that about 75 per cent of the candidates in the classical subjects fail to score as high as 60 per cent in their examinations. The figures really tell a very different story.

Very truly yours,

WALTER M. ADRIANCE,
Assistant Professor of Economics and Statistics,
Princeton University.

## III. Record of Classical Students in School and College

The records of the College Entrance Examination Board have shown how well the classically trained candidates for admission to college sustain the test of uniform examinations in comparison with those who have not had this training. The scholarship and honors rec-

ords of those schools and colleges in which a distinction can be made between the classical[2] and the non-classical students ought to furnish an even better basis of comparison; for whereas in the former we have only the single final test, in the latter the comparison rests upon the daily performance through several years of sustained endeavor. Accordingly a special committee was assigned the task, in connection with the Princeton Conference, of conducting an investigation whose object was to ascertain how the classical students in school and college succeed in competition with the non-classical—whether they fall behind their associates, keep even with them, or surpass them.

As the result of this investigation it is possible to give here, through the courtesy of the officials of the schools and colleges concerned, the combined scholarship and honors records of a considerable number of representa-

[2] In the school statistics a student is designated as "classical" who has had the full course in Latin; in the college statistics the "classical" student is one who presented for admission either three or four years of Latin. It was found impracticable, with the means at the disposal of the committee, to secure the data for such college students as continue the study of the classics for one or more years, in comparison with the others, although it was realized that the information to be derived from such data might be of unusual educational value.

It should be noted that the schools in which all or practically all pupils take the full course in Latin, or Latin and Greek, and colleges whose students on admission all offer four years of Latin (many of them Greek as well) could not be taken into consideration in this investigation, since they afford no basis for a comparison between the two classes of students concerned. Among the schools which on this account are not considered are: the Blake School (Minneapolis), the Boston Public Latin and the Boston Girls' Latin Schools, the Country Day School of Newton, Mass., the Groton School, the Hotchkiss School, the Roxbury Latin School, St. Mark's School and the Taft School; and among the colleges: Bryn Mawr, Georgetown, Hamilton, Johns Hopkins, Mt. Holyoke, Princeton, Smith, Vassar, Wellesley, Williams, Yale.

tive schools and colleges. The committee earnestly desired to obtain the same information from a very much larger number of institutions, and made every effort to do so; but in many schools and colleges the facts required are not recorded in such a way as to be available for the investigation of comparative standing, and could not be made available except by an intricate, extended and expensive investigation, for which neither the time nor the means were at hand; while in other institutions the recording officials have been so overwhelmed with work, in consequence of war conditions, that they have had no time to compile the statistics requested of them.

Nevertheless, the data thus far received from institutions in which a comparison can be made are extensive enough to be significant. The reports cover the cases of 2799 classical and 5606 non-classical sudents from nineteen high schools and academies,[3] and also of 4092 classical and 2003 non-classical students from seventeen colleges and universities.[4]

[3] Adelphi Academy (Brooklyn, N. Y.), Asheville School (Asheville, N. Car.), Blair Academy (Blairstown, N. J.), Central High School (St. Louis), Deering High School (Portland, Me.), Episcopal Academy (Philadelphia), Gilman Country School (Baltimore), Haverford School, the Hill School, Montclair High School, Newark Academy, New Haven High School, Nichols School (Buffalo), Norwich Free Academy, Pawling School (Pawling, N. Y.), Phillips Exeter Academy, St. Paul's School (Concord, N. H.), Shortridge High School (Indianapolis), the University High School (Chicago).

Certain data were received from Peddie Institute and the Hughes High School (Cincinnati), but they could not be presented in the same form with the others.

[4] Bowdoin, Clark, Columbia (the College), Haverford, Hobart, Illinois College, Kenyon, Knox, Lafayette, Pomona, Reed, Rutgers, Stanford, University of Colorado, University of Nebraska, University of Vermont, Washington and Lee.

Statistics received from Dartmouth, Davidson, Harvard, Washington and Jefferson, Washington University (St. Louis), and Wesleyan (Connecticut)

### A. *High Schools and Academies*

The combined data from the nineteen high schools and academies reporting yield the following results:

Students receiving High Honors at Graduation
were 18 per cent of all the classical students, but only 7.2 per cent of all the non-classical students.
That is: The classical students show a superiority of 150 per cent.

Students receiving Honors at Graduation
were 32.1 per cent of all the classical students, but only 30.8 per cent of all the non-classical students.
That is: The classical students show a superiority of 36.7 per cent.

Students receiving Honors or Prizes for Debating, Speaking or Essay-writing
were 8.8 per cent of all the classical students, but only 3.5 per cent of all the non-classical students.
That is: The classical students show a superiority of 150 per cent.

The reports from all schools, including a good many whose data have not been embodied in the above combined statistics of the nineteen schools, *are unanimous in showing the superiority of the classical students.* In a few reports, in a very few individual items, the result was unfavorable to the classical students, but no institution made a report which on the whole was anything but distinctly favorable.

could not be adapted to our form. Fragmentary data were also received from Colgate, Dickinson, Grinnell, Marietta, Rochester, Union, and William and Mary. The many colleges which require Latin for all degrees in liberal studies are, of course, omitted.

B. *Colleges*

The combined data from the seventeen colleges and universities reporting yield the following results:

Students receiving High Honors at Graduation
were 17.3 per cent of all the classical students, but only 6.6 per cent of all the non-classical students.
That is: The classical students show a superiority of 162 per cent.

Students receiving Honors at Graduation
were 46.5 per cent of all the classical students, but only 38.5 per cent of all the non-classical students.
That is: The classical students show a superiority of 20.7 per cent.

Students elected to Phi Beta Kappa
were 16.8 per cent of all the classical students, but only 8.9 per cent of all the non-classical students.
That is: The classical students show a superiority of 88.8 per cent.

Students winning Prizes or Honors for Scholarship in Other than Classical Subjects
were 13.5 per cent of all the classical students, but only 9.3 per cent of all the non-classical students.
That is: The classical students show a superiority of 45.2 per cent.

Students serving on the Editorial Boards of Student Newspapers and Magazines
were 15.1 per cent of all the classical students, but only 9.2 per cent of all the non-classical students.
That is: The classical students show a superiority of 64.1 per cent.

Students acting as Members of Intercollegiate Debating Teams

were 5.1 per cent of all the classical students, but only 3.2 per cent of all the non-classical students.

That is: The classical students show a superiority of 59.4 per cent.

In the case of the colleges, as of the schools, the reports received from all the institutions, including many (see p. 380, notes 3 and 4) which are not represented in the combined table, agree in attributing a general superiority to the classical students. *There are no exceptions among them.*[5]

The statistics which have been presented deserve careful study. They represent a wide range of educational experience under varied social conditions, and may fairly be considered as typical of the situation throughout the country in institutions in which there are two classes of students, not too unequal in numbers, which are clearly differentiated from each other by the character of the scholastic training they have received. They cover the cases of 29,508 pupils in the secondary schools, the majority of whom have either completed a four-year course or are well advanced in it, and of 6,095 college students who have completed the work for the Bachelor's degree. The candidates examined by the College Entrance Examination Board were prepared for college in public and private schools in all parts of the United States. The schools and colleges are confined to no one section of the country, although the southern states are meagerly represented.

The figures tell the same story with amazing uni-

[5] The superiority of non-classical students in winning college prizes in mathematics and science is the only instance where the classical students do not come out ahead. In spite of this particular instance, the marked general superiority of the classical students in every reporting college remains conclusively established.

formity, no matter what kind of intellectual test is applied: the classically trained students outrank their associates, win more honors and prizes and in general furnish the intellectual leaders in their several institutions. The difference is not slight or insignificant—it is in most cases overwhelming. And it is not confined to those departments and activities in which a linguistic training might be expected to give its possessor a clear advantage, as for example in writing and debating, but is almost as marked in the general subjects of the college curriculum. Note for instance that the average proportion of the classical students in college who win the prizes and honors *in other than classical subjects* is nearly one half larger than that of the non-classical students. And though the proportion of this superiority differs in different institutions, in only one[6] of ten which reported is this situation reversed. The classical students excel, not only in the older colleges of homogeneous clientele, like Bowdoin, Haverford and Kenyon, but also in the large universities of more recent origin, such as Stanford University and the State universities of Colorado and Nebraska.

Is it necessary to interpret facts so perspicuous as these? The objector will doubtless urge that there are factors at work other than those which the defender of the classics is disposed to emphasize. He may assert for example that the better class of students are often induced to study the classics because of the greater prestige of the Arts degree, for which Latin and Greek are prerequisite in the college which they have selected. There is little if any force to this argument, however,

[6] In this institution 37 of 39 prizes offered were in mathematics and science.

as applied to the statistics here presented, because in the first place Greek, which differentiates the Arts degree from the other degrees in a number of institutions, has been left out of consideration altogether; in the second place those institutions which require Latin of all or practically all their students have been excluded; and thirdly a very considerable number of the institutions which have been included grant only the Arts degree. It may be urged, again, that the institutions from which these statistics are drawn emphasize the classical studies. A sufficient answer is found in the enrollment: the non-classical students in the schools and colleges here reported outnumber the classical by over ten per cent. If the argument be advanced that there are other important ingredients in the education of the students here designated as classical, and that classical studies are therefore not responsible for the whole of the superiority indicated in the figures, the point will readily be conceded. The classical studies are difficult, and the students who elect to pursue them are more than likely to be found taking also the other difficult subjects of a disciplinary character, as for example mathematics and physics. In any event, the argument carries with it the admission that the classical students are, generally speaking, of superior mental endowment, and prosecute the severer studies with greater success than the non-classical students who often pursue the easier studies.

Note A

To pages 364-367, 378-383

The publication in detail of all the data upon which these statistical summaries are based, though desirable, proved to be too elaborate for the limits of this book. The results as given have, however, been verified with the utmost care, and are thoroughly reliable. The original returns from the College Entrance Examination Board and the various institutions,

and the correspondence connected therewith, are on file, and open to inspection by any responsible statistician.

### Note B

### To pages 368-374

On pages 368-374 Professor Forbes has restated with close accuracy the published statistics of the College Entrance Examination Board in terms of percentages of failures. Only the following slight and insignificant errors occur:

Page 368, line 19; 22.5 should be 23.5
" 372, " 31; 51.2 " " 50.2 (for Physics)
" 374, " 18; 58.3 " " 58.2
" 369, " 32; "geology" should be "geography"
" 371, " 10; "German" " " "German A"
" 371, " 33; "Music D" " " "Music D, E, F".

# V

# INDEX OF CONTRIBUTORS

# INDEX OF CONTRIBUTORS


Lawrence F. Abbott, 292
Lyman Abbott, 292
D. W. Abercrombie, 203
George Burton Adams, 317
L. E. Akeley, 263
Julian P. Alexander, 247
W. J. Alexander, 307
American Academy in Rome, 325
Thomas S. Baker, 221
Simeon E. Baldwin, 228
Lewellys F. Barker, 51, 250
David P. Barrows, 320
Henry M. Bates, 232
Dimner Beeber, 245
A. T. Belknap, 186
Berthelot, 353
Charles E. Bessey, 284
William T. Betts, 212
Hiram Bingham, 320
Frederic L. Bishop, 260
Hugh Black, 223
James A. Blaisdell, 190
Edwin H. Blashfield, 337
Maurice Bloomfield, 339
E. H. Bradford, 250
Robert Bridges, 291
L. B. R. Briggs, 294
British Statement, 345
Ernest W. Brown, 265
J. Maughs Brown, 263
M. G. Brumbaugh, 149
Rudolph E. Brünnow, 340
Viscount Bryce, 27, 41, 145
Seaver B. Buck, 202
H. G. Buehler, 209
Charles A. Buffum, 201
George Lincoln Burr, 314
M. L. Burton, 189
Nicholas Murray Butler, 41, 172
Douglas H. Campbell, 284
James Cappon, 306
George R. Chatburn, 260
G. Chinard, 311
Champ Clark, 147
John M. Clarke, 280
Grover Cleveland, 139
Lawrence Cole, 323
Thomas S. Cole, 218
W. W. Comfort, 176
Edwin Grant Conklin, 283
Henry C. Conrad, 235
Mortimer E. Cooley, 261
Drury W. Cooper, 240
Lane Cooper, 300
Cornell University Professors, 172
E. L. Corthell, 259
Hardin Craig, 304
Ralph Adams Cram, 333
William H. Crawford, 178
William A. Creditt, 286
Henry Crew, 269
Lord Cromer, 146
Arthur H. Cutler, 213
Charles W. Dabney, 185
Charles L. Dana, 255
James R. Day, 172
John B. Deaver, 258

Joseph V. Denney, 301
Francis A. Dewick, 160
John DeWitt, 225
H. H. Donaldson, 60, 283
Lucy Martin Donnelly, 301
Henry S. Drinker, 175, 260
sics
Alexander Duane, 256
Gano Dunn, 259
Richard H. Edmonds, 154
Howard Elliott, 151
Ephraim Emerton, 316
John M. Eshleman, 149
Arthur Fairbanks, 328
Sir Robert Alexander Falconer, 193
Henry W. Farnam, 79, 321
W. H. P. Faunce, 169
Robert H. Fernald, 261
Frank A. Fetter, 322
James B. Forgan, 159
Comité des Forges, 352
John W. Foster, 143
Charles Edwin Fox, 243
George L. Fox, 208
Kuno Francke, 312
J. C. Freeman, 303
Daniel Chester French, 336
French Academy, 349
French Iron Masters, 352
French Minister of Public Instruction, 351
Edwin B. Frost, 267
Frederick L. Gamage, 215
Harry Augustus Garfield, 170
Charles Mills Gayley, 305
Seth K. Gifford, 207
Virginia C. Gildersleeve, 299
Daniel M. Gordon, 193
George A. Gordon, 223
H. Tucker Graham, 184
C. H. Grandgent, 309
H. S. Graves, 286
S. S. Gregory, 229
N. C. Grover, 281
Arthur Twining Hadley, 167
George Ellery Hale, 266
Ernest G. Hapgood, 197
Fairfax Harrison, 79, 150
Charles H. Haskins, 316
Thomas Hastings, 83, 333
Charles H. Herty, 63, 270
John Grier Hibben, 87, 174
Henry L. Higginson, 155
William C. Hill, 206
George Frisbie Hoar, 147
Alexander R. Hohlfeld, 313
W. J. Holland, 282
Oliver Wendell Holmes, 233
Herbert Hoover, 145
Charles M. Hough, 234
J. G. Howard, 332
Harry B. Hutchins, 187
Charles S. Ingham, 202
William Mann Irvine, 220
Edmund J. James, 187
Morris Jastrow, Jr., 341
W. L. Jepson, 286
Alba B. Johnson, 75, 152
William Carey Jones, 232
Louis Kahlenberg, 278
W. W. Keen, 250
A. G. Keller, 324
Clarence H. Kelsey, 155
Henry P. Kendall, 162
Milo C. Ketcham, 262
Henry C. King, 185
Willard V. King, 156
H. W. E. Knower, 253
Morris Knowles, 265
Charles A. Kofoid, 283
Henry Kraemer, 286
Robert Lansing, 141
W. S. Layfield, 154

E. P. Lewis, 269
Henry Cabot Lodge, 97, 147
James Loeb, 158
Edgar Odell Lovett, 194
Abbott Lawrence Lowell, 167
D. O. S. Lowell, 199
Samuel W. McCall, 148
L. W. McCay, 271
James G. K. McClure, 225
S. S. McClure, 163
S. B. McCormick, 178
John H. MacCracken, 177
James R. Macfarlane, 235
James C. Mackenzie, 214
William D. McKenzie, 223
Richard C. Maclaurin, 171
S. J. McPherson, 216
William Francis Magie, 73, 268
George D. Markham, 161
Allan Marquand, 330
Walter R. Marsh, 213
Frank Jewett Mather, Jr., 331
Charles H. Mayo, 254
W. J. Mayo, 254
Alexander Meiklejohn, 169
Peter W. Meldrim, 231
J. T. Mentzer, 166
Charles R. Miller, 93, 287
Edward P. Mitchell, 89, 287
Paul Elmer More, 289
Effingham B. Morris, 158
William A. Morris, 319
James M. Morton, Jr., 235
Bernard Moses, 319
Roland J. Mulford, 210
Charles A. Munn, 163
Dana Carleton Munro, 318
William B. Munro, 161
James P. Munroe, 152
William F. Murray, 162
Alfred Noyes, 297
W. A. Noyes, 277
Robert Lincoln O'Brien, 287
George W. Ochs, 294
George D. Olds, 170
Henry Fairfield Osborn, 279
A. Mitchell Palmer, 148
Horatio Parker, 333
George W. Patterson, 262
Endicott Peabody, 209
William T. Peck, 209
Josiah H. Penniman, 175
Henry Pennypacker, 197
George Wharton Pepper, 248
Arthur S. Perkins, 162
Lewis Perry, 195
Harry A. Peters, 222
Sir William Peterson, 190
William Lyon Phelps, 295
F. C. Phillips, 277
George L. Plimpton, 195
Henri Poincaré, 353
Irving K. Pond, 334
William Campbell Posey, 258
Roscoe Pound, 48, 226
Lyman P. Powell, 173
T. C. Powell, 151
E. Parmalee Prentice, 238
George Haven Putnam, 164
M. Taylor Pyne, 241
George E. Quaile, 211
Redesdale, 338
Rush Rhees, 172
James Ford Rhodes, 315
W. K. Richardson, 237
F. C. Roberts, 264
Edward Robinson, 326
Theodore Roosevelt, 134
Elihu Root, 142
J. G. Rosengarten, 248
Herbert C. Sadler, 262
Seymour Van Santvoord, 150
Albert Sarraut, 351

Willard Saulsbury, 147
Felix E. Schelling, 299
R. Schevill, 311
Mortimer L. Schiff, 157
H. K. Schilling, 313
Ellis A. Schnabel, 219
William Berryman Scott, 66, 279
Charles W. Scovel, 160
Ellery Sedgwick, 287
Lawrence E. Sexton, 240
Bishop Shahan, 178
John C. Sharpe, 216
Isaac Sharpless, 176
Stuart P. Sherman, 302
William Sloane, 152
William Milligan Sloane, 315
Edward H. Smiley, 209
Alexander Smith, 271
Edgar F. Smith, 174, 270
Walter George Smith, 243
H. E. Spalding, 245
Alfred Stearns, 44, 195
Charles P. Steinmetz, 263
Francis Lynde Stetson, 237
E. L. Stewardson, 336
George C. St. John, 212
Lewis Buckley Stillwell, 70, 260
Anson Phelps Stokes, 168
Moorfield Storey, 236
T. B. Stork, 244
G. M. Stratton, 322
Charles H. Strout, 219
R. Clipston Sturgis, 329
William Howard Taft, 133
Henry Osborn Taylor, 318
Henry A. Terrell, 210
Thomas Thacher, 238
Ezra R. Thayer, 227
William G. Thayer, 201
William Sydney Thayer, 250
Max Thelen, 151
Calvin Thomas, 312
Robert Ellis Thompson, 217
Newton Thorpe, 321
Charles F. Thwing, 184
Henry R. Towne, 153
L. Scott Townsend, 159
Spencer Trotter, 285
Henry van Dyke, 296
Victor C. Vaughan, 56, 249
J. Barnard Walker, 291
Benjamin B. Warfield, 224
Henry B. Warren, 215
Chauncey W. Wells, 305
Robert M. Wenley, 322
Benjamin Ide Wheeler, 190
Morris Whitridge, 154
George W. Wickersham, 144
Harvey W. Wiley, 270
Talcott Williams, 288
H. V. Wilson, 283
Woodrow Wilson, 131
John B. Winslow, 234
Arthur B. Woodford, 208
Theodore S. Woolsey, 231
John A. Wyeth, 254
Stanley R. Yarnall, 218
John M. Zane, 247

# VI

# INDEX OF TOPICS

# INDEX OF TOPICS


A.B. degree, Greek in, 32
Academies, 339, 340, 381
Adriance, W. M., 374-378
Architecture, 333-336
Aristotle, 9
Astronomy, 266
Attention, 12
Augustine, 25
Bacon, Francis, 9
Bankers, 155-159
Biology, 60, 283
Botany, 284, 285
British Statements, 345
Business, 75, 79, 150
Carlyle, Thomas, 33
Catullus, 24, 25
Chemistry, 63, 174, 270
Cicero, title page
Classics:
  College Teaching of, 11, 13
  Faults in Teaching, 9-13
  Grammar in Teaching, 16
  How to Teach, 13-17
  Literature in Teaching, 16
  Nature of, 31, 32
  Objections to, 9-13, 19-23
  Practical Uses of, 29
  Quoted, title page, iii, 3, 4, 6, 9, 14, 15, 17, 24, 25, 26, 121
  Successful Results of, 17
  Teaching of, 13-17
  Translations of, 23-26
  True place of, 26-31
Classical Education: see Classics
Classical Teaching, see Classics
Colleges, 167, 383
College Entrance Examinations, 364
Comparative Record,
  In Entrance Examinations, 364-378
  In School Studies, 381-382
  In College Studies, 383-387
"Content" of Studies, 8, 19, 20
Cowper, 25
Economics, 79, 321, 322
Editors, 89, 93, 287
Effort, 12
Elective System, Free, 7
Elementary Education, 5, 6
Engineering, 70, 175, 259
English, 294
English, Classics in, 23
Ennius, 25
Enrollment in Secondary Schools, 357-364
Entrance Examinations, College, 364
Examinations, College Entrance, 364
Fine Arts, 85, 325
Flexner, Abraham, 365, 368-370, 374, 378
Forbes, C. H., 368
"Formal" Discipline, 19-23
Free Elective System, 7
French, 309-311
French Statements, 349-354
Geology, 66, 279, 280, 281

German, 312, 313
Greek Enrollment in Schools, 359
Hancock, Harris, 363-364
Herodotus, 24, 121
High Schools, 339, 340, 363, 381
History, 314-320
Homer, 24, 26
Horace, 24
Insurance, 160, 161
"Interest," 11, 12
Isocrates, iii
Language in Education, 27, 28
Latin Enrollment in Schools, 359
Law, 48, 226
Liberal Education, 6, 27, 29-33
Literature, Modern, 294
Livingstone, R. W., 26
Lowell, James Russell, 27
Manufacturers, 75, 153, 154
Mathematics, 265
Medicine, 51, 56, 249
Mill, John Stuart, 27
Milton, 24
Ministry, 223
Modern Languages, 29, 32, 294
Modern Literature, 294
Museums, 279, 280, 282, 326, 328, 330.
Music, 338
Oriental Studies, 338-345
Painting, 337
Percentages,
  In Enrollment, 361
  In Studies, 366, 370-374, 375-378, 381-385
Pharmacy, 286
Philosophy, 322
Physics, 73, 268
Plato, 3, 4, 6, 24
Political Economy, 79, 321, 322
Political Science, 320, 321
Psychology, 21-23, 322, 323
Public Life, 131
Publishers, 162-166
Quintilian, 14, 15, 17
Railways, 79, 150-152
Sappho, 25
Schools, 44, 195
Science, 265
Sculpture, 336
Secondary Schools, 339, 340
Semitic Studies, 339-345
Shorey, Paul, 27
Sociology, 324
Spanish, 311, 319
Statistics, 357
  Erroneous, 375
Stratton, G. M., 22, 322
Studies, Record in: see Comparative Record
Tacitus, 24
Translations, 23
Universities, 37, 41, 167
Versions of Classics, 23-26
Virgil, 25
Vocational Training, 5
Wells, H. G., 26
Will, 12
Zoology, 283

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